THE ARCHITECT & BUILDING NEWS

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- · SECONDARY SCHOOL, ENFIELD
- · RADIATION UNIT. COOKRIDGE
- · INFORMATION DIGEST

PUBLISHED IN LONDON SINCE 1854

WHERE SIMPLE OR COMPLICATED
SCHEMES OF VENTILATION ARE
INSTALLED, AND THE OPERATION
IS REQUIRED, BY REMOTE CONTROL
OR OTHERWISE, AND THE WINDOWS
HAVE ANY OF THE FOLLOWING
CHARACTERISTICS:

- OPENING OUTWARDS
- OPENING INWARDS
- TOP HUNG
- HORIZONTAL CENTRE-HUNG
- BOTTOM HUNG
- VERTICAL PIVOT HUNG
- SIDE HUNG
- HORIZONTAL SLIDING
- VERTICAL SLIDING



The illustration shows One Set of Electrically operated Twin Tension Rod Gear with Counter-Balance Unit operating one continuous opening light, 74' 0'' long x 5' 0'' deep. Note the Spiral Balance Wheel fitted at the end Sprocket.

Hways Specify WINDOW OPENING GEAR for SKYLIGHTS, LANTERN LIGHTS, CLERESTORY LIGHTS, FANLIGHTS, SIDE WALL LIGHTS IN WOOD OR METAL WINDOWS, OR IN PATENT GLAZING, ROOF LIGHTS AND BENCH LIGHTS IN GREENHOUSES, DAMPERS, TRAP DOORS, SHIPS SKYLIGHTS, ETC. HAND - OPERATED - ELECTRIC - HYDRAULIC - REMOTE CONTROL BY WILLIAM NEWMAN & SONS LTD. HOSPITAL STREET, BIRMINGHAM GEARING DEPT. BRANCH WORKS 3. WELLHEAD LANE, PERRY BARB, BIRMINGHAM

MARLEY CORNICE UNIT ley EAGLE

EY EAGLE BEA for suspended floors and flat roofs

Marley Eagle Beams incorporate many features which merit your full investigation. Produced in large quantities by factories strategically placed for quick service throughout the country, Eagle Beams are available at very competitive prices in most areas. If you are working in the South, you will find it advantageous to contact either Guildford, Romford. Cheltenham or Poole branches and obtain full information.

For your convenience we suggest you cut out this form, pin it to your letterhead and post in an unsealed envelope (2d. stamp) to any of the four branches listed opposite.

REQUEST FOR INFORMATION

Please tick where required.

I attach my letterhead. Please send me full literature on Marley

Eagle Beams.

Please arrange for a Technical Representative to call at my convenience.

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CURTAIN TRACK SYSTEMS

'Rufflette' Brand Tracks have been installed by many local authorities including Ilford, Wandsworth, Lewisham, Willesden, Finchley, Wood Green, Poplar, Wimbledon, Greenwich, Stoke Newington, Islington, Holborn, Leyton & West Ham Borough Councils. Also London, Bucks, Surrey, Middlesex & Essex County Councils.

Cubicle Track installations have been made for many hospitals including Edgware Gen., Mount Vernon, Richmond, Bushey Maternity, Northwood & Pinner Gen., Liverpool Stanley, East Suffolk & Ipswich, Southmead Bristol, Newcastle Gen., Darlington, Warrington Infy., and the Liverpool Royal Infy., and also for many municipal undertakings.

SEE OUR PERMANENT EXHIBITS AT THE BUILDING CENTRES IN LONDON AND GLASGOW

RECESSED

'Rufflette' brand Recessed Curtain Track is the most perfect method of curtain suspension ever devised. An integral part of the structure, it is concealed, permanent and inexpensive and can be fitted into wood or plaster lintels. Many architects have specified this product in new buildings.

'Rufflette' brand Recessed Curtain Track has been developed to meet the demand from architects, builders and contractors, for a permanent built-in curtain suspension system. It eliminates the risk of damage to ceiling and wall surfaces when tenants fit their own rails.



materials and finishes:

Steel channel strip:

Zinc plated and lacquered.

Patented spring clips:

Solid spring bronze.

Curtain track:

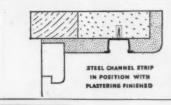
Solid brass or aluminium alloy.

Runners:

Brass, nickel-plated.

End stops:

Pressed steel, brassed or zinc-plated.

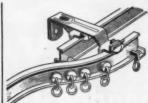




CURTAIN TRACK

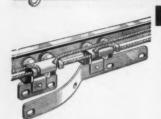


Made in brass or aluminium and suitable for all types of windows. Fixing brackets are made for top or face fixing, saving valuable time and cost on the job, and track is rigidly held in position by a single front-facing screw.



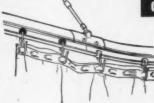
OVERLAP BRACKET

When cord-control is not used, curtain track can be cut and overlapped in the centre using the special BL7 bracket. This bracket fits over the standard fixing bracket, both being held in position by a single screw.



CORDICONTROL

Curtains can be effortlessly opened and closed on straight track with 'Rufflette' Cord Control. Wheeled master runners with a curved arm enable curtains to be overlapped without cutting track, thus avoiding the usual unsightly gap when curtains are closed.



CUBICLESTRACK

The simplest and best method of partitioning space by curtains. Suspension is from ceiling or wall, floor space being unobstructed, and silent runners make the operation of curtains almost inaudible. For hospitals, schools, hairdressing establishments, clin-

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Also at Wythenshawe, Associate Company in U.S.A.

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just look at the food it holds!

MODEL M.170

- Compact modern design saves valuable kitchen-space.
- Shelf area 3.7 sq. ft.
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- No interference with Radio or TV.
- Cooling unit guaranteed 5 years.

All this food goes into the M.170—it stores it all comfortably. Space-saving, yet roomy, the M.170 has a capacity adequate for most families. Its well-planned storage arrangements include: two useful door shelves for the storage of eggs, small packets, lager and soft drinks, etc. The cabinet has two removable shelves, one ice-tray with lever handle and one drip tray.

To: Electrolux Ltd.
Contracts Dept., 153/5
Regent St., London, W.I.
Please send me full particulars of Model M.170.

NAME.
A.13.
ADDRESS.

4

80% EFFICIENCY MAINTAINED OVER TWELVE MONTHS

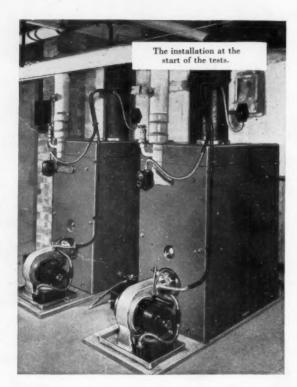
Potterton Oil-Fired Boiler-Burner Units in Launderette Test

In April 1955 two prototype Potterton Oil-Fired Boiler-Burner Units were put on test in a Bendix Launderette. On 19th April 1956 after a year's heavy use, in which they delivered $\frac{1}{2}$ million gallons of water for 41,000 washes, the boilers were stripped down and examined. Right up until the last two or three weeks of the year the efficiency of one Boiler was close to 80%, the same was true of the other boiler after slight air infiltration had been dealt with.

£80 saved

The cost of fuel over the 12 month period was £80 less than it would have been had the launderette not used boilers designed for oil-firing. Servicing during the year took approximately 4 hours. Final servicing and examination at the end of the year took 7 hours for each boiler, giving ... total servicing cost of some £12.

Soot and rubble weighing, in all, only $5\frac{1}{2}$ lb., were easily removed from the flue-ways and had not materially affected the performance of either boiler.



Smoke

The smoke numbers, except for about 5 weeks on one boiler, were always below the minimum visible smoke level of 5.

PERFORMANCE RECORD LEFT-HAND BOILER Weeks 10 20 30 40 50 80% 60% Jet changed (dirty) Beiler stripped and cleaned PERFORMANCE RECORD RIGHT-HAND BOILER Weeks 10 20 30 40 50

Cost of Living

Provided no major factors intervene, the price of De La Rue products will be stabilized until March 31st, 1957. Fuel Efficiency Exhibition OLYMPIA 2-10 OCT. 1956

For full details of this test, together with information about the latest boiler burner units, please write to:

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CUMBERLAND LANE, C.5 Tel South 1896

PLIMBERITE WOOD CHIPBOARD

SIZE: 8 ft. x 4 ft.

THICKNESSES: $\frac{1}{2}$ in. and $\frac{3}{4}$ in.

DENSITY: 45 lbs./cu.ft.

PARTITIONING AND WALL LINING

Partitions can be single-skin or double-skin; in either case the boards are pinned to posts at about 4 ft. centres, and no other battening is required. For wall lining, construction is similar, using $\frac{1}{2}$ in. board over stud framework at 4 ft. centres. Insulation is similar to that of timber.

THE PLIMBERITE REBOND PARTITIONING SYSTEM

This system has been designed to provide a demountable double-skin partition of great rigidity and high insulation value. Rebated-edge $\frac{3}{4}$ in. PLIMBERITE boards are slotted into grooved timber posts which are held in position by PLIMBERITE REBOND screw jacks. Full details and working drawings are contained in the PLIMBERITE REBOND Booklet, obtainable on request.

FLOORING

For an easily laid, hard-wearing floor, full size $\frac{3}{4}$ in. PLIMBERITE boards may be nailed over joists at 16 in.

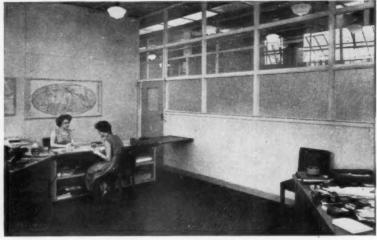
centres, or boards of either thickness laid over a solid sub-floor. Plugs or fillets should be let into concrete, and the boards screwed down at 24 in. centres; waterproof felt should be laid between the screed and the boards to prevent rising damp.

ROOFING

Boards of either thickness may be nailed to joists or rafters, and should be covered with felt and asphalt or other waterproof covering. Care should be taken to protect the boards from the rain before the outer covering is laid.

PLIMBERITE IN GENERAL JOINERY

In either thickness, the boards have many uses where large areas have to be covered without jointing. Cupboard doors, wide shelving, table tops and work benches are among the many applications. PLIMBERITE is also an excellent core for plastic sheet and wood veneers.



British Nylon Spinners Ltd. were faced with providing additional office accommodation at very short notice, and after considering several possible systems, the Chief Engineer specified Plimberite boards in the ½" thickness mounted on rebated 3" × 2" timber posts at 4" centres. The partitioning had to have a reasonably high degree of sound insulation and present an attractive appearance. A further condition which had to be kept in mind was that the partitioning had to be of a type which could be easily taken down in the future. This work was carried out by the Main Contractor on site, Sir Robert McAlpine & Sons, Limited.

DECORATION AND TREATMENT

In general, the surface should be primed, using wood primer, before decorating with distemper, emulsion paint, or oil paint. If it is desired to fill the surface, this should be done after priming. Oil and spirit stains can also be used, as well as many other special preparations designed for treating wood.

PLIMBERITE is stocked and sold by Timber and Builders' Merchants. The name of your nearest, main distributor, also samples and technical literature will be supplied on request.

BRITISH PLIMBER LIMITED

19, Albert Embankment, London, S.E.11 Telephone: RELiance 4242 PLIMBERITE WOOD CHIPBOARD

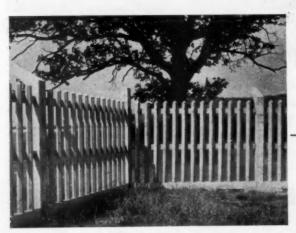
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VIBRATED CONCRETE FENCING REINFORCED WITH ACCURATELY PLACED MILD STEEL REINFORCEMENT ENSURES LONG LIFE WITH NOMINAL MAINTENANCE.

'PALISADE' OR 'PANEL' DESIGNS.



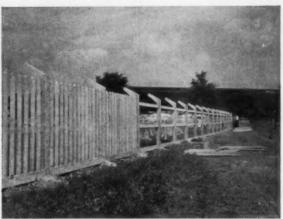
Complete Bays with pales in position and the further structure ready to receive pales stacked on site.



Photographs by courtesy of the Colne Valley Water Company

COMPLETE ERECTION SERVICE.

A "Palisade" fence in course of erection illustrating the main structure comprising 6" x 6" posts (in this case with extended heads for barbed wire) with arris rails and plinths. The plinths are recessed to receive the pales and themselves locate in the post mortices. Pales are fixed to arris rails by our special fixing (patent No. 744392) after main structure is erected.



A corner of the completed fence 6' high plus bent head post, giving approx. 7' to maximum post height. Including 3 lines of barbed wire.

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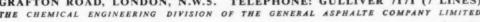
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RYDURA the cotton fabric with the remarkable 'PROFILM' finish, has been used here with great success for the seating of the Lounge Bar of the Royal Tudor Hotel, Cardiff, owned by S. A. Brain & Co. Ltd. RYDURA is ideal for covering chairs and other forms of seating for use in hotels, bars, restaurants, etc; but there is an equally strong demand for RYDURA as a wall covering, and as a decoration for wooden and metal furniture.

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of the latest, most efficient
heating units



Whether you're specifying for a single dwelling or an entire estate, there's a Fl. vel appliance designed to fit almost any standard fireplace. Five of them are shown and briefly described on this page. For fuller details, you are invited to write to Flavels. Their Architectural Advisory Bureau is always ready to give expert advice and information about all Flavel appliances . . . solid fuel grates, boilers, cooker/water heaters, gasheated clothes-dryer, water heaters, fires and cookers.



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THE 'NEWBOLD'

Economical with all solid fuel, especially coke.
Accurate fast or slow burning control; low construction ensures warm hearth. Cast iron construction: no costly fire bricks to replace.
Available in 14" and 16" sizes for use as inset grates. In a wide range of vitreous enamel finishes.



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Large-surface high efficiency type boiler providing 250 gallons of hot water per week and heating two radiators and towel rail of up to 35 sq. ft. combined radiation area. Requires no more space than a normal open fire with standard 9" x 9" flue.



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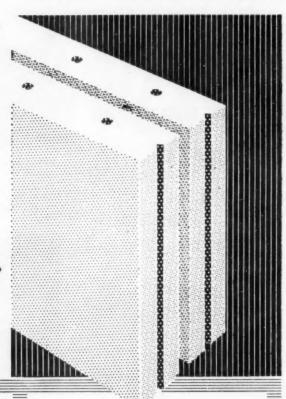
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Three hotplates — fast boil, boil and simmer. Roomy main oven with automatic interior light and 'slow' oven for warming, etc. New firebox design prevents dust escaping, gives maximum fuel economy. Provision for left right or centre boiler connections; afternative back or top flueing permits flush fitting.

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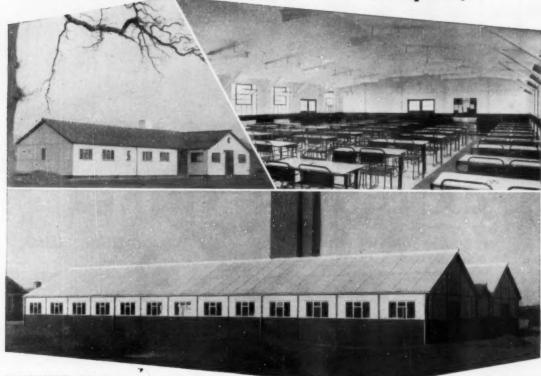
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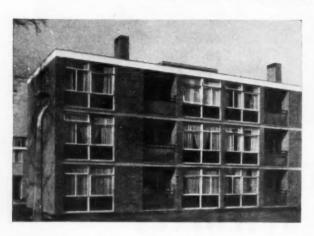
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speeds construction and lowers heating costs





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COMMERCIAL COUNSELLOR (Timber) DEPT. M.3., CANADA HOUSE TRAFALGAR SQUARE, LONDON SW I Timber framed wall panels in L.C.C. flats at Ackroydon Estate, Wandsworth. Architects: J. L. Martin, M.A., Ph. D., F.R.I.B.A. Architect to the Council, Whitfield Lewis, A.R.I.B.A., Principal Housing Architect.

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AD. NO. 3

The Walls of Avignon



During the thirteenth and fourteenth centuries, the city of Avignon was protected by a massive curtain wall. This view of the ramparts from the city side shows one of the flanking towers with its steep narrow steps and a machicolation* which pierced the floor at the first storey. The system of defence resulted in a violent contrast between immense fortifications and a narrow and deliberately inconvenient means of access to them.

*opening permitting the defenders to burl stones down on to their assailants.

vertical transport today is resolved with efficiency and comfort, using lifts and escalators by



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2 ONDON Electric Firm Ltd., specialists in the design and manufacture of Raising and Lowering Gear and Winch Gear, supplied equipment for a number of installations in the New Terminal building at London Airport.

L.E.F. Raising and Lowering Gear is installed with the special fittings designed by the Architect, Frederick Gibberd in the Passengers Concourse. Special

Lifting Gear is also provided for use with the giant loudspeaker. Windows in the Control Tower are operated by a number of small L.E.F. Hand Winches.

These installations in this important new building are further proof of the confidence which architects place in L.E.F. equipment.

If you need advice on Special Raising and Lowering Gear or Winch Gear, or would like details of standard equipment, make your enquiries direct to:

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ADAM HOUSE, EDINBURGH UNIVERSITY

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HEAVY RUBOLEUM is a superfine linoleum 6.70 mm. thick (approx. ¼"), was first produced by us in 1907, and still holds its position of the highest merit as a floorcovering because of its properties of hygiene, resilience, durability and decorative colourings.

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with GREENWOOD-AIRVAC DOME VENTILATORS

- * Permanent or controlled ventilation
- * For rectangular or circular domes in glass or perspex
- * Increased lighting area over ordinary domelights
- * All-steel construction, zinc sprayed
- * Fully weathered external louvres
- * Optional internal hit and miss shutters
- Unique toggle for hand or long arm control
- * Designed for mounting on prepared concrete or timber curbs

CIRCULAR VENTILATOR

Circular models are supplied to fit standard circular domes from 18" diameter to 72" diameter



SQUARE VENTUATOR

Square and rectangular models are available to suit most standard domes from 30" x 30" to 48" x 72"

PATENTED

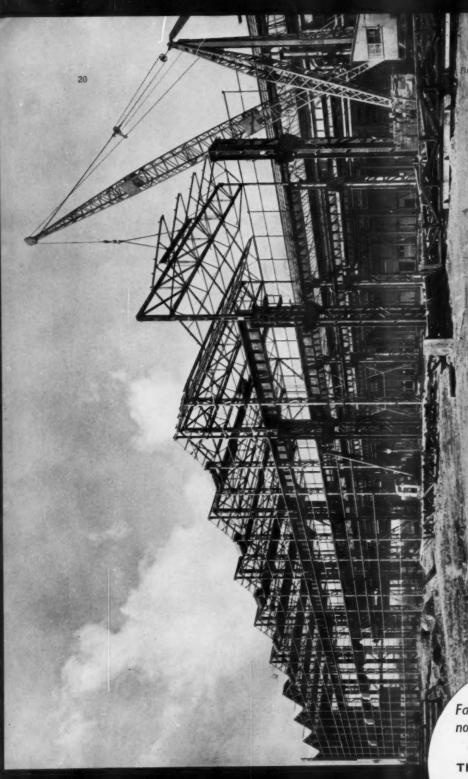
Write for fully illustrated literature

Greenwood-Airvac ventilation

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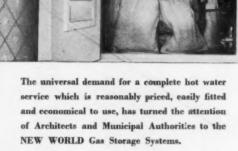
Tees Side



NEW WORLD

HOT WATER

SUPPLY SYSTEM-



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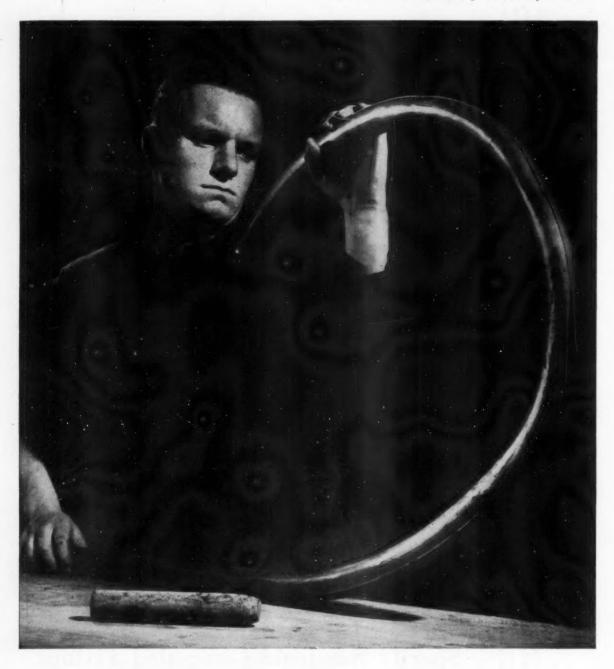
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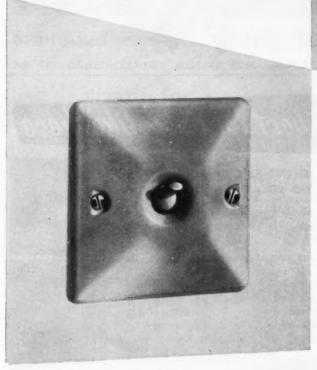
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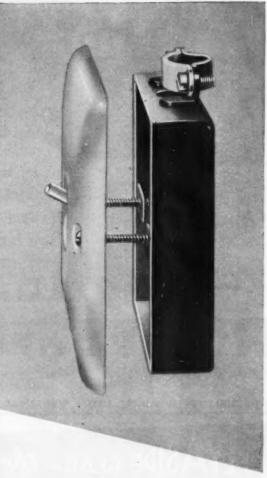
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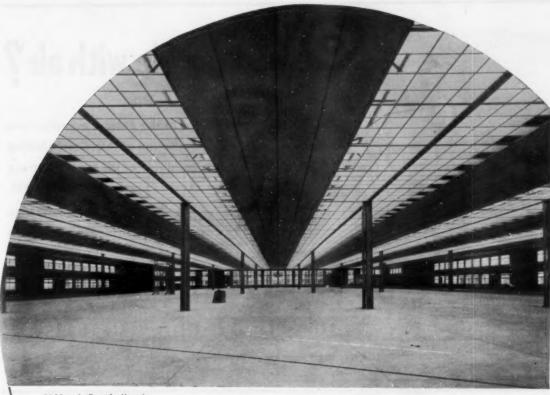
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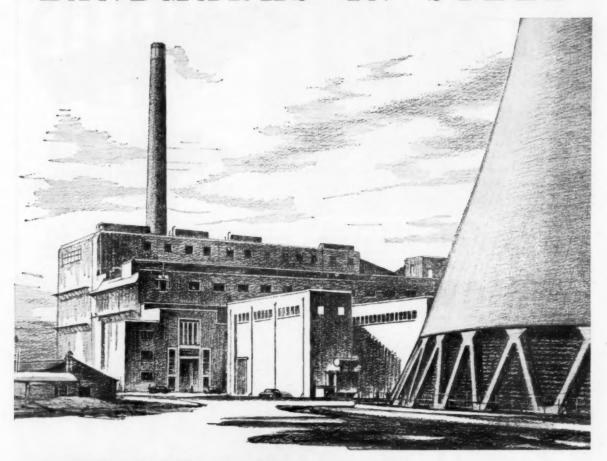


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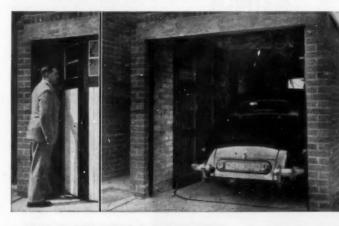
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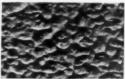
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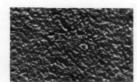
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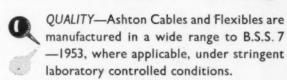
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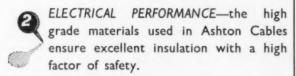
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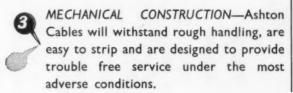
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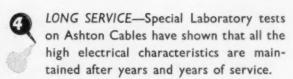
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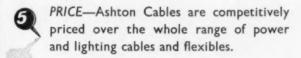












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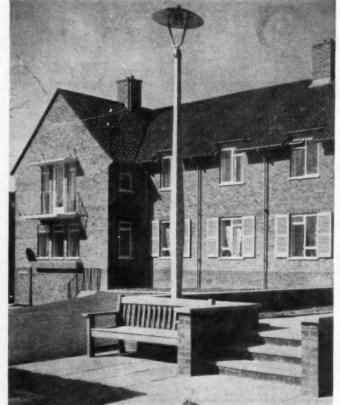
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September 13, 1956

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RURAL INDUSTRIES

THE annual report† of the Rural Industries Bureau for the year 1955-56 was recently published and contains within its pages much which will be of interest to the architect and to the builder.

The Bureau was founded in 1921 in order to help in the economic betterment of the countryside and particularly in providing jobs in the country other than on the farm.

Who knows what architect or builder retired from the milling city life to which he has been enslaved may not turn in his wiser years to the rewards enjoyed by the country craftsman.

It is in the country workshops that the government has entrusted the Bureau with the task of providing technical advice and assistance including individual instruction by courses at Farm Institutes and other centres and by experimental work carried out at the Bureau's headquarters, where practical problems of wide application and possible benefit to a whole industry are studied rather than those of a single workshop.

Technical and other aid given through the Bureau has led recently to the reopening of the Kirkstone Green slate quarries in Westmorland where I in thick sawn and polished facing slabs have been produced for a number of contracts.

The Bureau's clay technicians have evolved an extremely sucessful acid-resisting engineering brick from crushed slate quarry waste. Material from Wales, Cornwall and Westmorland have been tried with success in all cases, and the result has been the beginning of a possible new industry in Wales where the raw material lies in huge unsightly heaps the sooner reduced in size the better.

Training is given in orthodox wrought-iron techniques † "Hand and Machine in the Country".

so that the more skilful smiths do not give up fire welding and other branches of their trade. At the same time experiments are going forward with cheap alternative methods of making steel gates, gutters and balustrades by welding and cold bending; these do not masquerade as wrought iron and some of them are simple but fierce modern designs.

Thatching standards in the country are kept up by a staff of master thatchers, skilled in the three main methods of work. There has been a good deal of research into the mechanical cutting of aquatic reed for thatching as labour is hard to get.

Not least of the Board's activities are their publications which are in steady demand, including a leaflet for architects, land agents and builders on thatching* giving information on correct standards and work measurement.

Smaller industries whose products deserve fuller publicity include furniture making. One maker in Warwickshire is still producing rush-seated chairs to the designs of Ernest Gimson, from whom the present maker learned much of his trade. Other country firms produce excellent modern furniture in limited series; in between are a large variety of makers whose style varies, as it must, according to their generation, but who are nearly all ready to produce custom-built work.

One of the rural craftsman's strongest suits is that you can generally go to him with a drawing and get exactly what you want made; and possibly much more quickly and cheaply than would be the case in a larger and more highly organized workshop.

It is up to architects in particular to use the country workshop as much as possible. This would not only benefit them and their clients, but give the rural industries an opportunity to improve their own standard of design.

^{· &}quot;Thatching Specifications".

EVENTS AND COMMENTS

BOYS AND GIRLS

I enjoyed Hultons Boys' and Girls' exhibition at Olympia, but I imagine that many mothers found it terrifying. The young were variously exorted to ride motor tricycles, fly jet aircraft, join the submarine service or just ride a push bike. Most of it was very well done and I liked the various space ships and rockets suspended from the roof. Most "comics" had stands which no doubt meant a lot to their readers but little to me. There were plenty of exhibits out to recruit candidates for science and the services (both warlike and peaceful). On a somewhat tudorized tower of London room the Grenadier Guards showed the set of dioramas which they had at their recent exhibition at St. James's Palace. Among the visitors to this stand I saw three young nuns delightedly examining a bearskin which was being shown to them by a guardsman. Toy manufacturers were there in force and many of those making model trains had big working installations. They were, however, all surpassed by British Railways who had a wonderful layout operated by a couple of extremely serious-looking gents.

The Royal Navy had a not-so-miniature submarine on their stand, and while one white sweatered seaman dropped a never-ending excursion of small boys and girls down a hatch at one end another pulled them out of a hatch at the other end.

I saw no recruiting for the peaceful profession of architecture.

FREE FARE AT THE FOOD FAIR

Although only separated by a door from the Boys' and Girls' show I had to walk a long way to find the entrance of the *Daily Express* sponsored Food Fair. I found it rather boring, for it seemed to be one vast sea of beautifully arranged tins and packets. Each stall had several girls or women of varying beauty offering their own particular brand of free sample. It seemed to me that one might live very well in the exhibition for 2s 6d (the entrance money) per day although I suppose one's face might become rather too familiar in the end. If there were any really interesting exhibits I missed them.

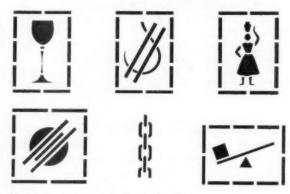
TV TELEPHONE

This horror of horrors, or ultimate in lie detectors is here on a commercial basis I am told. By "here" I mean with us, not fortunately, in this country. The Bell Telephone Co. of America has succeeded in designing a machine which will work with the voice part of telephoning on the usual two wires. The disadvantages are too many and too obvious to list the advantages, on the



"This horror of horrors or ultimate in lie detectors."

other hand seem to me to be to difficult to discover. Of course one would be able to make funny faces at the many professional wrong number diallers.



Pictorial instructions for freight handlers.

SELF-EXPLANATORY SYMBOLS

My picture shows the recently approved symbols for the pictorial marking of handling instructions on nondangerous products—B.S. 2770 of 1956. I do not know what you think but I would never have guessed the meaning of some of the signs but perhaps they will be as clear as daylight to the chaps at the docks in Zanzibar or Belize. (Are there any docks in Belize?)

DESIGN CONGRESS, 1956

This year's congress, organized by the C.o.I.D. began yesterday and ends today. A longer report on it will appear next week. The theme of the congress is "The

Management of Design". Speakers include visitors from Holland, Germany, Sweden, the United States, Italy, Finland and France. The familiar British names are on the list, and among the manufacturers who will speak are Mr. W. T. Wren, Managing Director of Allied Ironfounders, and Mr. Cyril Carter, Chairman of Carter & Co., of Poole.

JAVA IN EARLS COURT

Earls Court Station is a cosmopolitan place and English seems to be one of the rarer languages heard in its precincts. I imagine, however, that this has little to do with the choice of Javanese puppet decor in the nearby recently opened Wayang Coffee Bar. I like the look of the place very much; this is partly due to the good colouring and excellent lighting which gives it at once richness and intimacy even when crowded with people. My picture gives the bare tones of the design and is most unflattering. If you are a coffee-house fan you should certainly put this one on your list.

MICHAEL VENTRIS

The death of Michael Ventris in a motor car accident at the age of 34 has horrified all who knew him. He had already earned fame and an O.B.E. by his

Coffee Bar, see Java in Earls Court.

NEWS

Carlisle Assembly Hall

The Corporation of the City and County Borough of Carlisle are inviting architects registered under the Architects (Registration) Acts and resident in the U.K. or the Republic of Ireland, to submit in competition designs for a new assembly hall and municipal offices. The assessor will be Professor W. B. Edwards, F.R.I.B.A.

The site faces on to Rickergate, at the junction of Lowther and Scotch Streets, and is at present occupied by several old buildings (N.A.A.F.I. Club, C.D.H.Q., etc.) which are to be demolished. Mr. W. Hirst, the Deputy Town Clerk, said that the cost of the new buildings is hoped to be about £½m. and the conditions of the competition will be obtainable on or after September 17 by applying to the Town Clerk, 15 Fisher Street, Carlisle. There is a 2gn deposit.

Six competitors will be selected to proceed to the final stage and each will receive the sum of £300. Last day for submitting designs is Thursday, January 31, 1957. The winning design will receive £1,000. The last day for submitting final designs is July 1, 1957.

Applicants for the conditions must state their registration number or the number of the receipt issued to them by the Architects Registration Council in respect of the admission fee.

Income Tax Concessions of Architects' Pensions

The Finance Act 1956 offers an important relief in the case of self-employed tax payers or those in employment which is not pensionable. Subject to certain conditions

original archæological work and the outcome of his research for the *Architect's Journal* on "Information and the Architect" was awaited with considerable expectation. Ventris, who was a member of the A.A. Council was a quiet person and difficult to know. He had however great charm and considerable character. The house which he designed with his architect wife for their own use showed him to have very much above average ability and the profession will mourn one of its brightest younger stars.

ABNER



and limits, the premiums in respect of a deferred annuity of approved type will rank as a charge upon income both for Income Tax and Surtax.

The conditions laid down by the Finance Act provide that the contract may not be assigned or dealt with in any way, all premiums paid being refunded to the policy holder's estate in the event of his death before pension age. The Income Tax concessions are particularly attractive in the case of the Surtax payer, but necessarily will carry less weight where a lower rate of Tax applies.

The A.B.S. Insurance Agency Ltd. has made arrangements with a number of leading Life Offices undertaking this business. The requirements of each inquirer will be considered in the light of all the circumstances referred to above, and the approximate contract recommended.

The A.B.S. Insurance Agency Ltd. invites inquiries from Architects for any type of Insurance cover which may be required from time to time. The resources of the leading Companies and well-known Lloyds Brokers are available.

The Architects' Benevolent Society benefits as a result of all Insurance business arranged through the A.B.S. Insurance Agency Ltd.

Eastern Federation Residential Course

The Eastern Federation of Building Trades' Employers in the steady development of its training programme have now arranged what is believed to be the first residential course of its kind for building management students.

The course will be held at Belstead House, Ipswich, from Monday to Friday, September 17 to 21, and the 25 places available have been fully taken up. The inclusive fee has been limited to £5.

continued overleaf

Believing in the value of some joint education of architectural and building students the Federation invited Members of each Chapter or Society of Architects in the whole of the Eastern Counties to send architectural students to the Course; unfortunately the name of only one architectural student has been submitted. Places reserved for architectural students have now been filled by students with member firms of the Federation.

Talks will be followed by discussion in groups which will report back and there will in addition be films, a quiz, a visit to the Ipswich Docks Cliff Quay Extension, and if weather permits, some tennis in the free time which

remains.

The subjects and speakers include the following: "Current Economic Problems," by D. Raymond, Esq., Assistant Secretary, Cambridge University Extra-Mural Board. "The Structure of the Building Industry," by E. J. Cook, Esq., B.Sc., Director, Richard Costain Ltd. "The Principles of Management," by N. S. Farrow, Esq., M.B.E., Director, Howard Farrow Ltd. "Managing a Building Contract," by M. J. Youngs, M.C., Director, J. Youngs & Son Ltd. "Trade Unions and the Industrial Agreement," by R. W. Porter, Esq., M.B.E., Director, Eastern Federation of Building Trades' Employers. "The Architect in the Building Team," by V. Hamnett, Esq., Executive Architect, Harlow Development Corporation. "The R.I.B.A. Standard Forms of Contract," by Michael Chavasse, Esq., Barrister-at-Law. The Course will be opened by the President of the Federation, Mr. R. G. Carter, M.M., J.P.

Law and Administration

Compensation and Income Tax

If damages are awarded to a man as a result of injuries caused to him by the negligence of another they often include compensation for loss of earnings. Until late last year the sum so awarded for loss of earnings took no account of the inability of the injured party to pay income-tax. The House of Lords in British Transport Commission v. Gourley (A & B Reported) decided that in future the liability to income-tax must be taken into account by the Court when awarding damages.

This problem has recently come up in another form. In the recent case of West Suffolk County Council v. W. Rought Ltd., the local authority concerned compulsorily acquired leasehold factory premises which were owned and occupied by the respondent company for manufacturing purposes. There was a lapse of time of some nine months between the time when the authority took possession and the date when the manufacturers recommenced operations for alternative accommodation. The company claimed compensation for loss of profits during the interregnum. The Lands Tribunal awarded the company £11,600 on this account.

The House of Lords were asked to decide whether the Lands Tribunal was correct in refusing to take into account the inability of the Company to pay tax had it in fact earned these profits. Lord Morton giving judg-

ment said:

"It seems to me that the reasoning which led this House to its decision in Gourley's case is equally applicable to the present case. In Gourley's case the House had to decide what was the actual monetary loss suffered by the injured man by being deprived of earnings which he would have made if he had not been injured. In the present case the House has to decide . . . what was the actual monetary loss suffered by the respondents by

being deprived of profits which they would have made in the period of nine months already mentioned. I can see no reason why, if the incidence of taxation was a relevant factor in Gourley's case, it is not also a relevant factor in the present case. The result is that the Lands Tribunal should have estimated, to the best of their ability, the amount of additional taxation which the respondents would have to bear if they had actually earned, during the period of nine months already mentioned, the sum of £11,600 awarded to them . . . and should have reduced the award by that amount."

The House admitted that it might, in some cases, be difficult to estimate the appropriate sum but stressed that the onus was upon the Claimant to make good this claim to a particular sum as representing his loss after

the incidence of taxation.

Building Regulations

The meaning to be attached to the Building (Safety, Health and Welfare) Regulations, 1948, is a source of constant difficulty to those who must put them into effect. From time to time light is shed upon particular words in these Regulations by the Courts. The latest contribution is to be found in the case of Fallaize v. Troughton & Young Ltd. The facts were simple; an employee was drilling holes of about 3in diameter to contain rawlplugs in a reinforced concrete ceiling. This was being done with a Kango hammer to which was fitted a fluted bit having four cutting edges starting from the pointed end and running down the sides of the bit. The bit was fitted with an arm which was used to turn it round while the hole was being drilled, the effect of which was to make the hole circular and clear away waste material. While on this work a workman was injured by a piece of steel and concrete which hit him in the eye. defendants were charged with a contravention of Regulation 84 in that they failed to provide goggles or effective screens to protect their workmen's eyes while engaged in a process specified in the Second Schedule to the Regulations, namely "Cutting . . . concrete . . . by means of a portable tool driven by mechanical power." The defendants contended that the operation of "cutting" was to be regarded as nearly synonymous with "dressing" or carving and that drilling or boring was not such a process. The Court disposed of the point briefly. Lord Goddard

"In this case holes were being drilled into concrete by means of this tool, which is a straight tool having cutting edges, revolving no doubt at great speed. The justices [in the Court below] thought that that process did not involve cutting. This Court does not take that view. This Court takes the view that it involves cutting . . . I think obviously drilling holes in a concrete wall involves cutting because one cuts the stone or concrete out in order to put something else in."

It was not contested that the regulations applied in all other respects.

Housing returns

The Housing Progress Reports, presented to Parliament as White Papers by the Minister of Housing and Local Government and the Secretary of State for Scotland, show that the number of permanent houses completed in Great Britain during July was 24,995 compared with 25,589 in July, 1955. In the first seven months of 1956, 169,207 permanent houses were completed compared with 181,439 in the same period of 1955. New permanent houses and flats completed in 1956 to July 31 were: By Public Authorities 100,244, by Private Builders 68,963.

Planning Summer School, Nottingham

NOTTINGHAM, 1950, again in 1956. During this period of six years between the holding of Town and Country Planning Summer Schools at Nottingham, gallons-nay, millions of gallons of water have flowed down the Trent to the sea. That water has served a useful purpose. Standing on the bank of the Trent one might well be forgiven if one looked upon that water as running to waste. During the same six years planning has, like the Trent, continued to exercise the brains of those whose job it is to plan. Like the waters of the Trent, it has not been wasted, far from it. What has been done in those six years may not show immediate results. There has been a deterioration in the minds of so many people, local government representatives as well as the lay public, but this year's Summer School was characterized by an underlying faith in the planners, and they included every branch of the professions, that even though there had been a worsening of public opinion as regards planning, their efforts made on behalf of the public at large would in the long run yield results which would help to make their lot happier and more content.

Even against the unenlightened antagonistic public opinion, because planning's objects are misunderstood, it was pleasing to note that the faith of the planners at the School ran high in their profession, and its objects. They may be right and events may prove them right, but will the public appreciate the good which they have

unconsciously received?

The School was opened in the correct and dignified manner with words of welcome and good wishes by the civic heads of both town and country. This was followed by an address with the uninspiring title of "Plans, Ancient and Modern", by Dr. William Neil, M.A., B.D., Ph.D., Warden of High Stewart Hall, University of Nottingham. This address, as was only to be expected coming from Dr. Neil, was one of the best expositions of building projects of the Bible ever delivered. Ranging from Noah's Ark to the New Jerusalem in the Book of Revelations, he brought to light many facts of Biblical history which to many would otherwise have been quite unknown. This paper set the high tone for the following day's addresses.

The first paper delivered to the 400 pupils of the School was on "Overspill", by Dame Evelyn Sharpe, D.B.E., Permanent Secretary to the Ministry of Housing and

Local Government.

Overspill she chose as the subject of her address because the word, ugly and inhuman as it is, stands for the biggest and the most far-reaching effort—and the one with perhaps the greatest consequence for human beings—which planning is attempting. Incidentally, Dame Evelyn mentioned that the Minister was always asking for a better word than overspill, so if any readers of the A. & B.N. can think of a better that could appear in Hansard, I am sure she would be pleased to have your suggestions.

Without doubt the problem of overspill is one of the

Below, Electrin House, New Cavendish Street for the R. B. Pullin Group by architects Gollins, Melvin, Ward and Partners. The Group's new showroom was opened on Monday

COMING EVENTS

The Council of Industrial Design

September 12-13. The Design Congress. At 28 Haymarket, S.W.1.

The Institute of Contemporary Arts

September 13 at 8.15 p.m. "The Precinct of St. Paul's Cathedral," by Sir William Holford. At 17-18 Dover Street, W.1.

The Royal Institute of Chartered Surveyors

September 13 at 7 p.m. Press Conference in connection with the exhibition depicting "The Story of Surrey in Maps" to take place the following week. At The County Hall, Kingston-upon-Thames.

National Federation of Building Trades' Employers

September 18 to October 9. Exhibition, "Britain Builds for the World," arranged in collaboration with the Ministry of Works. At the Booking Hall, Charing Cross Underground Station.

London Master Builders' Association

September 21 at 12.45. Luncheon to meet The Lord Mayor of London, Alderman Sir Cuthbert Ackroyd, Bart. At the Savoy Hotel.

City Hall for Kano

Work has begun on a new city hall at Kano, Northern Nigeria, and is expected to be complete within a year. It will become a major landmark on one side of the city square.



Planning Summer School

most difficult, not in the planning sense but in its accomplishment, that we have had to tackle since the war. Except for the New Towns and a few isolated examples of town expansion, progress has been both slow and disappointing.

Dame Evelyn stated as her opinion that the overspill policy was right and must be made to work. The difficulties were formidable. Part of the difficulty of overspill is that the plans for it were not widely enough

Overspill she defined as the movement of people and employment from congested and overgrown cities to places at some distance-perhaps at a great distance. Places which can be developed or expanded as more or less selfcontained communities.

The problem in so far as numbers were concerned she did not think formidable-21 million-it was the complexity of the operation. The trouble lay in the administrative and financial difficulties, particularly under the present local government system.

Dame Evelyn outlined the three possible methods of achieving this object, out-county estates, New Towns and town development. Any one of these methods can only succeed if the decentralization of employment takes place.

Planners are accused of using jargon, but it was left to no less a layman than Mr. W. G. Fiske, Chairman of the Housing Committee of the L.C.C., to introduce a new expression into planning jargon with "the twilight zone". Does that convey anything to you? Don't blame the planner.

Having made this point I will admit Mr. Fiske brought to the notice of the planners present at Nottingham a problem which should be tackled now by many other authorities than the L.C.C. Most of us are conversant with slum clearance, rehousing of the displaced persons and redevelopment. But, pointed out Mr. Fiske, consider a fourth side of the picture—the twilight zone. Between the slums and the suburbs of every city there is this twilight area, this area which if not attended to now will soon degenerate into slums.

Rehabilitation on a large scale could save such areas

and give them a new long lease of life.

On cost alone his suggestion is worthy of consideration. At the Brandon Estate in Southwark where the L.C.C. are carrying out this policy, a new dwelling on an average costs £2,700, whereas a rehabilitated house costs £1,400. On this estate of about 50 acres which the L.C.C. has purchased, some properties are to be reconditioned, some demolished and replaced by new houses and blocks of flats up to 18 storeys high. The scheme has been conceived as a whole and from the illustrations and models before the School it will be a scheme worth watching.

From slums through the twilight zone to the town or city centre, so the School progressed. The changing functions and forms of town centres was expounded by

Professor Gardner-Medwin.

'Planners'', said the Professor, "were apt to forget that one of the foremost functions of a town centre was to give pleasure. The demand for dramatic effect was as important as ever, but the theatrical theme had changed. Pompous monumentality no longer seemed to have any point; the drama must be more informal and He stressed that whatever the problem in central area design, the planners' object should be to gain the utmost visual pleasure from the most practical

The professor, during his address, pleaded for better urban landscaping and street furniture.

On the Sunday, the scholars visited Corby, whose town centre is perhaps the most advanced among New Towns, and thereafter Coventry, whose civic centre has led the way in imaginative planning.

The paper that may well prove to have the greatest influence on the future of planning was delivered by a non-planner. Derek Senior, Local Government Correspondent of the Manchester Guardian, spoke to the School

Planning has lost its appeal to the general public, an appeal which it had just after the war, because it is not understood by the man in the street. In essence, he asked if it has ever been explained to him in words he could understand.

"To get at the mass of the people for whose benefit you plan-and on whose goodwill the success (and even the survival) of planning depends-is a job that calls for an entirely different approach. But as yet hardly any of the responsible authorities, national or local, have begun to tackle it, and the few that have seem incapable of grasping the scale of the effort it requires, or the fact that it is a highly specialized job, demanding the trained skill of a professional expert, backed by the accumulated knowledge and highly developed research facilities of a major industry.'

Publicity, he quite rightly pointed out, costs money; but it could be money well spent. Using the example of the makers of a new detergent who spent nearly one million pounds on the first five months of its major launching campaign, he pointed out that they knew almost exactly how many housewives would become aware of the existence of their product and be persuaded to give it a trial. To illustrate his point he used the failure of

the Development Charge.

"A few years ago", he stated, "the Ministry decided to abandon Lord Silkin's scheme for getting rid of the compensation-betterment problem-at what cost I cannot guess in work wasted, in the collection and repayment of development charges, to say nothing of present frustrations and perils ahead. Nobody pretended it was a bad scheme: Mr. Macmillan himself paid tribute in his White Paper to the soundness of its conception and the beauty of its logic. It was abandoned expressly because it was unpopular; it was unpopular because it was misunderstood; and that, so the White Paper implied, was just one of those things-an act of God, a regrettable misfortune, entirely unconnected with the shameful fact that the Government had never thought of attempting to give the scheme a thousandth part of the publicity required to create for it a favourable climate of opinion.

What would this have cost? "It might well," Mr. Senior felt, "have cost anything up to a million to do the job properly. But what of it? What if it had cost two millions, or even five? The Labour Government was quite happy to fork out £300 millions in compensation, and the only serious criticism of this figure from the Conservative Opposition was that it ought to have been fifty million more. I very much doubt if Lord Silkin himself made it 300 rather than 295 or 305 for any better reason

than that he preferred the rounder figure.'

What, you may ask, do the Government and Local Authorities spend on publicity? I do not know the former, but a fair guess for the latter would be precisely nothing. They rely on free press publicity, and when it is unfavourable they squeal.

To those of us architects or planners who have to write reports I would give the advice that it would be well to consider Mr. Senior's words of wisdom on this subject.

"At what point do aldermen and councillors stop reading the reports of their chief officers?" he asked. "Don't think they don't. How often have I attended council meetings at which it has been painfully obvious that not one member in ten has read the report under discussion; and how often have I sympathized with them in their decision to leave it unread. Local government breeds a stylist: austere, anonymous, impersonal-above all, dignified. 'Consideration has been given', he writes, 'to the question of the provision of additional residential accommodation of a multi-storey character in comprehensive redevelopment areas.' He would not dream of writing: 'We thought of putting more high flats on slum sites'. To begin with, it seems to be a rigid rule in local government that every statement must be put in the passive voice, so that it can be admitted that something has been considered without divulging whether it was the committee, the chairman, the chief officer or the office boy that did the considering. Half the dilatoriness, the passing of the bucks, the shirking of responsibility, the lazy-mindedness, and the want of initiative in local government could be eradicated overnight by the simple expedient of forbidding the use of the passive voice in any official document.'

There is without doubt more than an essence of truth in this statement.

I have only taken two examples from Mr. Senior's paper, but it was full of home truths which, as I mentioned, may do more good to the cause of planning than any of the other learned papers.

The final address was on a totally different subject— The Development and the Preservation of Sites of Historic and Archaeological Interest—and was delivered by Mr. M. W. Barley. He literally brought the scholars down to earth.

In addition to the informal discussion groups which are to be found in the Common Room of the halls of residence every evening, and sometimes well into the morning—there are the subject discussion groups held each morning after the main lecture. These groups are intended to be tutorial in character; tutorial in the sense that one learns from the experience of others.

The benefit gained from these group discussions varies in proportion to the talent of the Leader and the experience of, and willingness to impart that experience to the members of the group.

An attempt is made to cover as many facets of the planner's problems as possible. This year the subjects ranged from Motorways, Coalfield Planning Problems, Outdoor Advertising to Commercial Development and Town Planning.

As usual an exhibition is run in conjunction with the school. This year it has been arranged by a committee of the North Midland Branch of the T.P.I. They are to be congratulated on linking the exhibition material with the subjects under discussion at the school. For example, models, plans and perspectives of the L.C.C. proposals for the Brandon Estate at Southwark were displayed, and in addition, officers of the L.C.C. were there to explain the scheme. This proposal was used as an example by Mr. Fiske in his paper on the Friday. Holford's St. Paul's plans were also featured, as were the proposals for the Elephant and Castle C.D.A., the Barbican, Corby New Town and many schemes local to the cities and towns around Nottingham.

Walking round the exhibition one felt a pang of regret that after the school was over the material would no doubt go back to the authorities concerned and be put safely away in a drawer. The Brandon Scheme will no doubt appear in our technical journals, but how many laymen read the technical press. Here was a scheme which should be studied by other authorities with similar problems. There should be some machinery whereby drawings for such proposals could be made.

M. E. TAYLOR







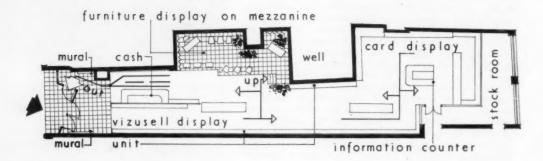
British Railway's Furniture

Above, furniture designed by Robin Day and made by Helle & Co., for King's Cross Station. Right, a combined ash tray and litter bin designed by the B.R.(E) architect and made by Conran Furniture. See Abner's comment last week.

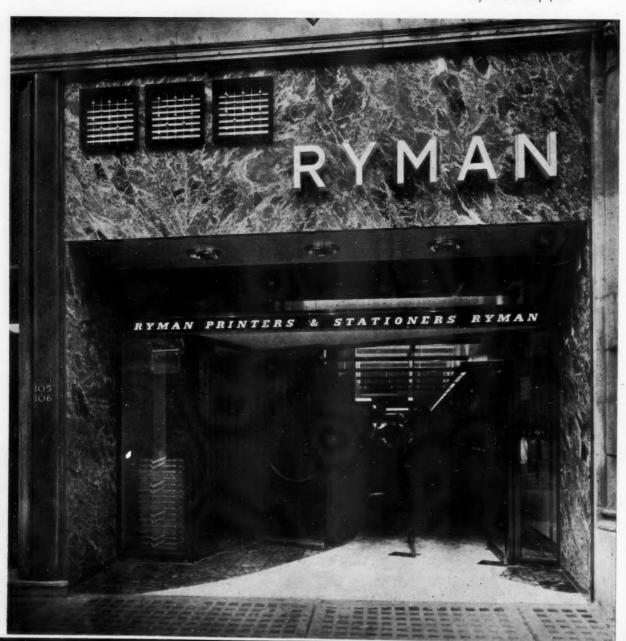


Help Yourself Stationers Shop

NEW BOND STREET, W.I



Layout and shop front



architects: NORTH & PARTNERS

THE shop premises at 106 New Bond Street, London, W.1, are a new acquisition by Messrs. H. J. Ryman Ltd., who at present are in the process of refitting their various shops.

The clients general requirements are for a large shelf display area to accommodate their wide range of merchandise, which covers all office equipment from the larger items such as desks and typewriters to the minutiae of stationery equipment.

The clients felt that the majority of their stock was suitable for sale on a self-service basis and decided that this shop would be equipped on those lines—the first time that this principle has been applied to this type of trade. In order to give the maximum flexibility of display, they also required the fittings to be based on the "Vizusell" system. This is derived from the vertical channel and adjustable bracket system, a number of which have been introduced since the war, but this later method introduced several refinements, together with an extremely wide range of shelf and bracket types which were obviously well suited to the clients' needs.

There was very close co-operation from Messrs. Versatile Fittings (W.H.S.) Ltd., and a number of the parts were flown across from the United States where the system originated.

The planning of the self-service shop was rendered more complex by the very narrow width of the premises, particularly at the entrance, as the main object of such planning is to allow free access into the shop leading to a canalized circulation, allowing one or more routes back to the exit when the customer has purchased such items as he requires. It was then necessary to provide a separate exit unconfused by the entrance doors at an angle to the main front, to give added width, and setting the exit door at a right angle to this, added emphasis being given to the entrance route by the use of black and white Terrazzo paving, patterned to give a "lead-in" effect.

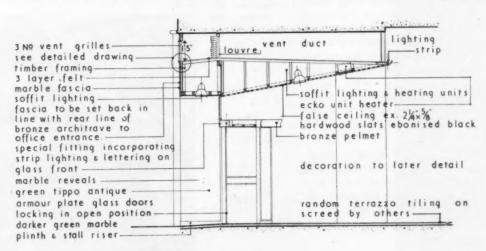
The larger items such as furniture, typewriters and adding machines which were not suitable for the self-service principle, have been kept out of the main stream of traffic and are displayed upon a raised platform some



The way into the shop. Outgoing customer's channel on the right.

2ft high in one of the recesses on the left hand side of the shop. In a similar manner, more expensive items of sale, such as fountain pens and pencils, and the Printing Order Department, have been placed at the rear of the premises in order that they will not too greatly impede the circulation. In this manner the whole of the items which are most suitable for self-service have been kept on one circuit which, due to the complications of the entrance/exit theme, has been made anti-clockwise.

Owing to the psychological need for keeping the display shelves well stocked and the fact that the amount of storage accommodation within the premises was extremely limited, blind cupboards have been built into the specially designed wall and island fitments to form the first reserve of stock for the filling of display



Detail showing vertical section through entrance doors and vent duct.



Looking down the shop from the "In" entrance doors showing Vizusell display to left and right.

Help Yourself Stationers

shelves. Attention has been paid to the lighting layout and the system of point-of-sale lighting was agreed upon after much discussion. General over-all indirect illumination is provided to the ceiling and the goods on display are accentuated by an overhead pelmet lighting strip running the full length of the shelves and independent fittings on the island units. This has also helped to resolve the twin problems of keeping maximum clear visibility throughout the shops with the clients' desire to stock the shelving to its fullest capacity.

The colour scheme was designed to provide immediate interest by the use of bright contrasting colours with papers and drapes acting as a foil to the medium grey flooring which is relieved only by bright colours to a simple non-rigid pattern laid down in such a manner as to emphasise the circulation.

It was desired to keep a basic simplicity in the whole of the front elevation, using the maximum amount of glass in order to throw the whole of the interior of the shop into display. The only complicating factor was the necessity to deal with the inlet and extract trunks to the ventilating system to the basement. The only manner of reconciling these two factors was to reduce the ventilating louvres to a minimum and incorporate them into the marble fascia. These were then covered with grilles of a simple design and incorporated as a feature on the main fascia.

It is anticipated that a short period of further experiment will be necessary before the correct balance of display and storage is adequately solved and it may also be necessary to further explore the circulatory problem within the confined width available. Shopfitters :

Courtney Pope Ltd.

A. Davies & Co. Ltd.

Electrical Installation :

C. & R. Electric Ltd.

Fittings :

Versatile Fittings (W.H.S.) Ltd.

Flooring :

Semtex Ltd

Lettering :

Franco Signs Ltd.

Marble :

Jaconello Ltd.

Colour :

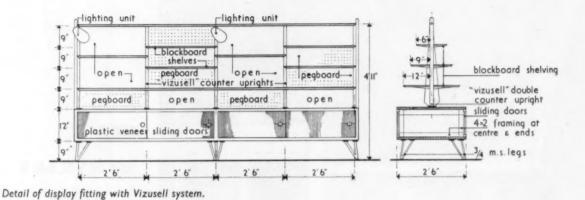
George Collett Associates.



The end section of the shop.



Unit with Vizusell display.



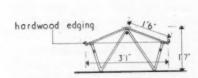


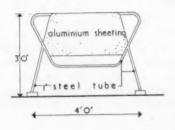


Two details of the end portion of the shop showing printing order department and card display.

Finally, the shop doors are reached on the outside where payment is made for the goods collected en route.

Display units in steel tube.









CHACE
SECONDARY
MODERN
SCHOOL

ENFIELD

architects:
C.G.STILLMAN
Middlesex
County
architect

C. HARTLAND Deputy County architect.

Main entrance. The projection carries staircase to 1st floor level.

THE site consists of about 9.25 acres of level land between Baker Street and Churchbury Lane, Enfield. The school buildings and playgrounds have been erected at the south-east corner of the site, with the main entrance from Churchbury Lane. The remainder of the site will be playing fields, and three football pitches, a cricket table and practice nets; facilities for high and long jumps will be provided.

A schoolkeeper's house is provided.

Building

The school is a four-form entry secondary modern school for boys only and has 600 places. The 21 class-rooms are situated in a three-storey block; on the ground floor are two metalwork rooms, one elementary and one advanced; the two woodwork rooms are on the

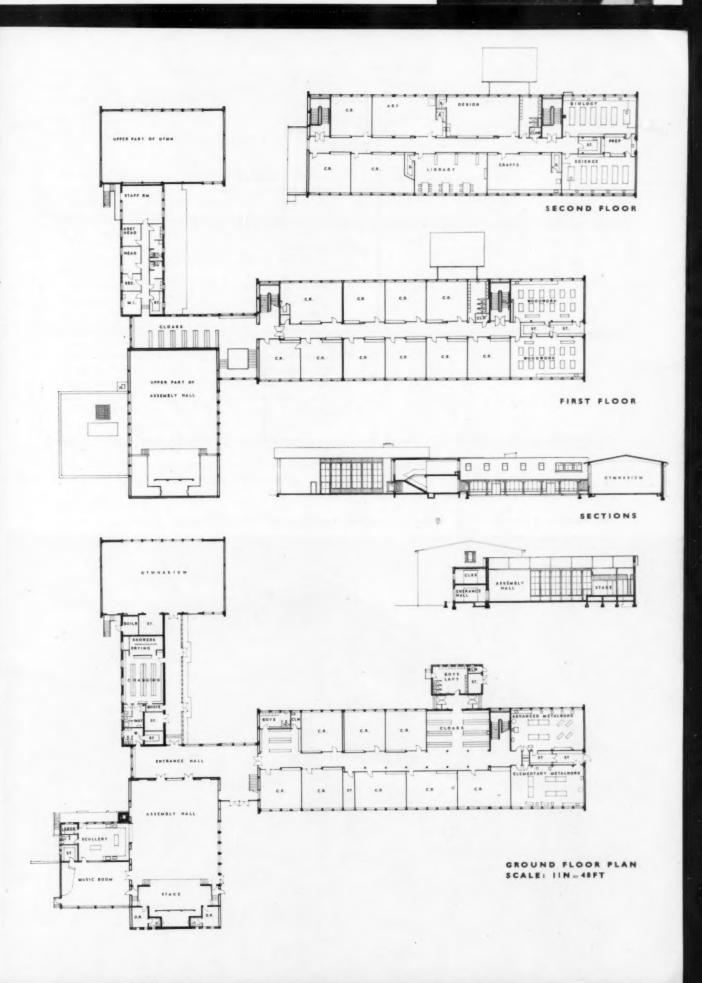
first floor. On the second floor are the library and the two laboratories, one biology (with a Wardian window) and one general science, together with rooms for design, for art and for craft.

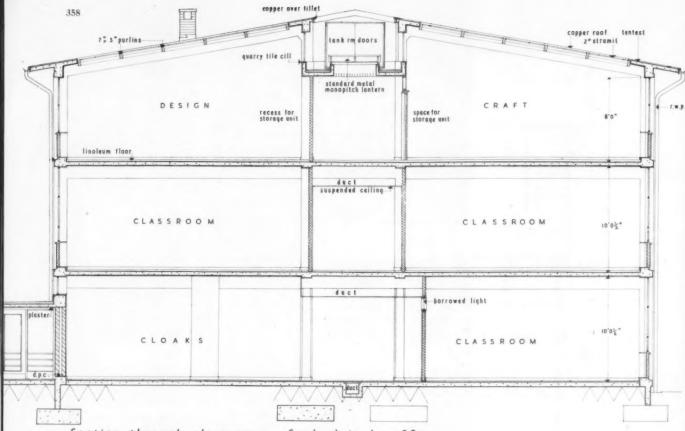
Each standard classroom has a specially designed storage unit, with cupboards and shelves, and specialist rooms have larger stores.

Cloaks are provided in bays on the ground and first floor, and in units along the first floor corridor. Laboratories are situated on each floor, with the majority on the ground floor; access to these is also provided from the playground.

The main staircase in the entrance hall ascends over the main entrance doors to first floor landing level, with a secondary stair leading to the second floor; a

Continued on page 359





Section through classrooms. Scale I inch = 8ft.

West elevation of classroom block. Bricks are handmade Liecester golden multi buff-facings.



Secondary School, Enfield

continued from page 356

second one is placed at the end of the block. There is direct access from the main staircase to the staff rooms.

A music room with a small fixed stage is placed next to the Assembly Hall; a scullery with serving hatches to the music room and to the Assembly Hall, both of which will be used for school meals, has been planned so that it can be extended in the future to full kitchen size.

The Assembly Hall, of 2,800 square ft, has an 18ft deep stage. As the Hall is licensed for public performances, male and female dressing rooms with sanitary accommodation are provided at the rear of the stage.

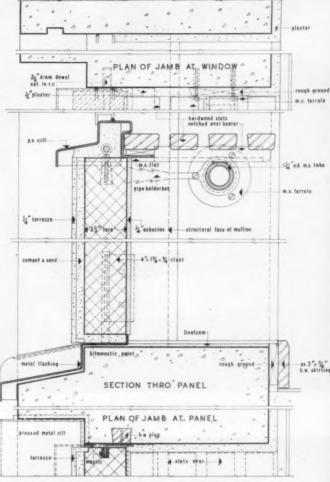
The gymnasium forms a separate unit connected with the Assembly Hall block by a covered way and changing rooms, showers, etc. The staff rooms are above and consist of Head's and Assistant Head's rooms, secretary's room, M.I. and staff common room.

The access to the Boiler House, which is situated under the scullery, is approached by a staircase from the service yard in front of the scullery.

The cost per place is £198 on tender; the cost per F.S. is £2 12s 9d, and the area per place is 75 F.S. The school opened for this year's summer term.

Construction

The main teaching block is constructed in a reinforced concrete frame and floor slabs on concrete foundations and oversite concrete. Panels below windows to first and second floors are in precast terrazzo faced Leca slabs with hardwood weatherboard panels Cladding detail. Scale: lin = 5in



West elevation. Projecting block is a boys' lavatory with direct playground access. Glass brick wall gives light to stairs.





Biology Lab. Fittings are hardwood with teak tops to wall bench. Only fixed bench under window has sinks and gas pipes as centre tables are movable. Below is a view of the main stairs. The soffit is painted yellow and walls lilac.



Secondary School, Enfield

on ground floor. Metal windows are used throughout and doors and door frames are in timber. The kitchen roof is covered with copper. Ground floor partitions are in 4½in brickwork, and first and second floor partitions in 3in Leca blocks. The walls are plastered internally except in stores.

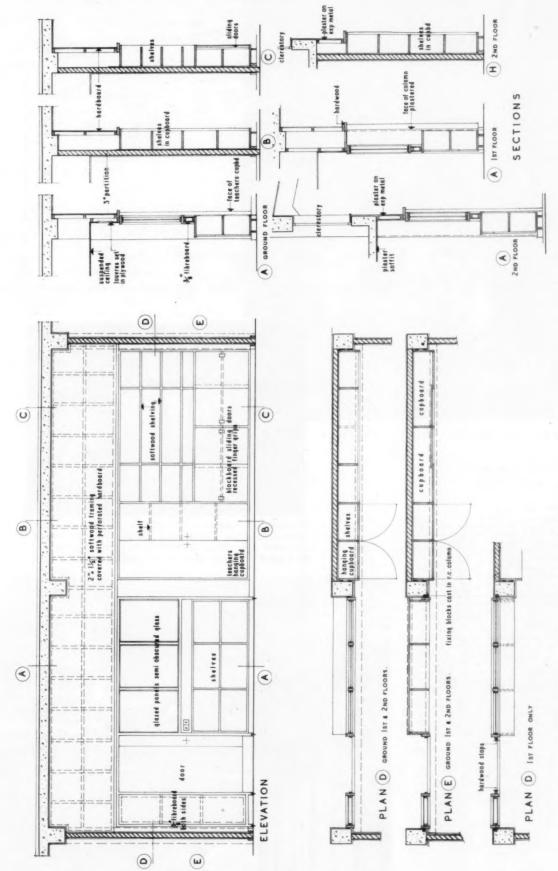
The Assembly Hall has face brick gable walls, reinforced concrete columns, light steel pitched roof trusses with timber purlins and copper roofing. The windows are metal in hardwood frames and wood block flooring to the hall and strip flooring to the stage.

The changing room and administration block is in load bearing brickwork with cased steel beams with flat concrete roof slab.

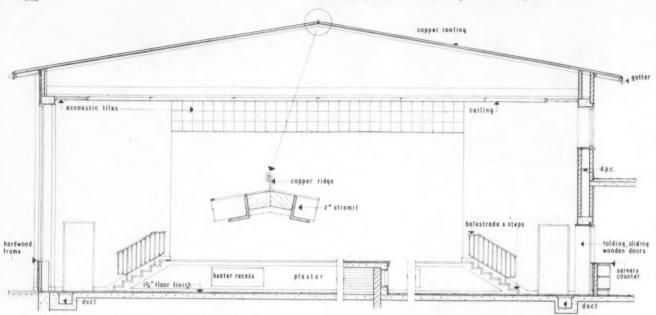
The gymnasium is in reinforced concrete frame construction with brick end walls and panel filling. Panels below windows are in hardwood weatherboarding. Windows are metal in hardwood frames. The flooring is maple strip flooring on battens.

The music room and scullery/servery are in load bearing brickwork with cased steel beams, reinforced concrete floor and roof slabs.

Heating is by low pressure hot water system.



Screen and Cupboard Unit to Classroom. Scale lin = 4ft.



Section through hall. Scale: lin. = 8ft.

Secondary School, Enfield

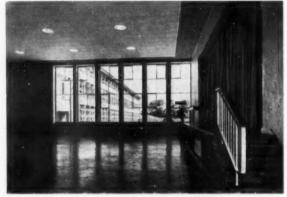
Area Architect: G. J. Anderson

Architect in Charge: D. F. Woodman

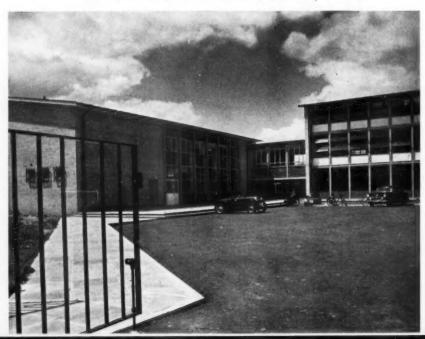
General Contractors: F. Troy & Co. Ltd.

Subcontractors:

Anti-Condensation Plaster: C. & T. (Pyrok) Contracts
Ltd. Bricks (Facing): H. J. Greenham (1929) Ltd.
Ceilings (Suspended): Tentest Fibre Board Co. Ltd.
Ceilar Flops: Clark Hunt & Co. Ltd. Cement Glaze
Finish: Prodorite Ltd. Cloakroom Fittings: Sotos Ltd.
Crossovers and sewer connections: Borough of Enfeld.
Cupboards Units: Walter Lawrence & Sons Ltd.
Cutatins and Curtain Track: Tidmarsh & Sons.
Drinking Fountain: T. A. Harris Ltd. Electricity
Mains and Meters: Eastern Electricity Board.
Flooring (Asphalte): Natural Rock Asphalte Co. Ltd.;
(Wood Block and Strip): Vigers Bros. Ltd. Gas Mains
and Meters: Eastern Electricity Board.
Flooring (Asphalte): Natural Rock Asphalte Co. Ltd.;
(Wood Block and Strip): Vigers Bros. Ltd. Gas Mains
and Meters: Eastern Gas Board. Gates: T. W.
Palmer & Co. Ltd. Glass Brick Panels: J. A. King
& Co. Ltd. Grilles (Vectair): F. H. Biddle Ltd.
(Extract): N. F. Ramsay & Co. Ltd.; (Ventilation):
Copperad Ltd. Heating, Hot Woter and Ventilation
Installations: W. F. Richardson & Co. Ltd. Ironmongery: W. N. Froy & Sons Ltd. Laboratory
Fittings: W. H. Gaze & Sons Ltd. Letter Box: N. F.
Ramsay & Co. Ltd. Lettering: W. N. Froy & Sons
Ltd. Library Fittings: G. M. Hammer & Co. Ltd.
Liphtning Conductors: R. C. Cutting & Co. Ltd.
Roofing (Asphalte): Natural Rock Asphalte Co. Ltd.
Solide Coppings and Cills: John Flescher Dixon Ltd.
Slote Coppings and Cills: Joh

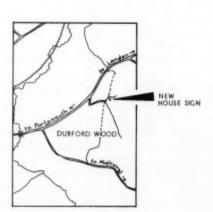


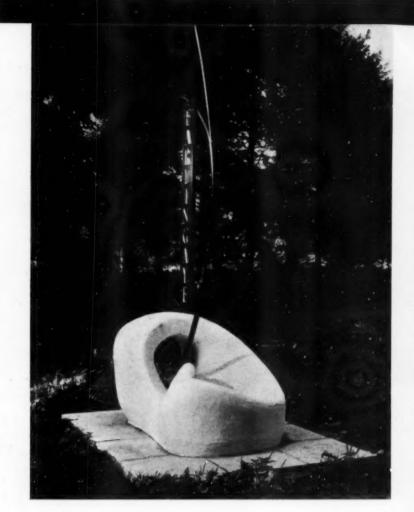
Assembly hall (above) has a suspended ceiling with a blue painted margin of acoustic tiles. Floor is muhuhu, rest of woodwork oak. Main entrance (below) has black painted W.I. gates and grilles to window in gable end.

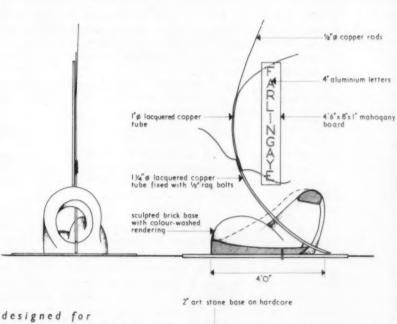


House Sign Durford Wood

THIS house sign off the A.3 London-Portsmouth road, near Petersfield is at the end of a drive to a private house and quarter of a mile from the highway. As the picture shows it is on a site surrounded by trees and shrubs. (So much grass was growing around the sign that our photographer had to hack a clearing with a scythe before taking his pictures.) The original design was for an artificial stone base with tubular aluminium alloy members supporting oak boarding on which the aluminium, standard lettering has been fixed. But cost estimates for this proved too high and the base shown here is colour washed and rendered brick, supporting the bow shaped, lacquered and polished copper upright. Vertical board is lin thick mahogany. The base stands on an artificial stone slab which was laid as a protection against upsplash and lichen growth. Contractor: Messrs. Powell and Lillywhite.







CARTER & SALAMEN

ANTHONY HUTCHINS



From South

RADIATION TREATMENT & RESEARCH UNIT

COOKRIDGE HOSPITAL, LEEDS

architects: P. B. NASH, Architect, Leeds Regional Hospital Board W. H. KING (Kitson, Parish, Ledgard and Ryman)

THE High Energy Radiation Unit at Cookridge is the first stage in the development of Cookridge Hospital as a Regional Radiotherapy Centre, with provision for research in radiotherapy, radiation chemistry and radiobiology.

The Centre has been established to provide new facilities for the treatment of cancer and for the study of the physical, chemical and therapeutic action of high energy radiation. This planned sharing of a powerful radiation source by radiotherapists, chemists and physicists not only results in an economic use of expensive apparatus but also brings together a group of medical and non-medical men working on problems which have much in common and are fundamental to radiobiology.

High Energy Radiation Unit

High energy radiation is required for therapeutic purposes because it offers important advantages over conventional X-ray apparatus in the treatment of cancer. Deeper sites in the body can be thereby irradiated, with less effect on the overlying skin and with minimal damage to intervening bone. A source capable of giving intense and constant radiation is also valuable for studying the chemical action of radiation both on substances of biological importance and those having industrial applications.

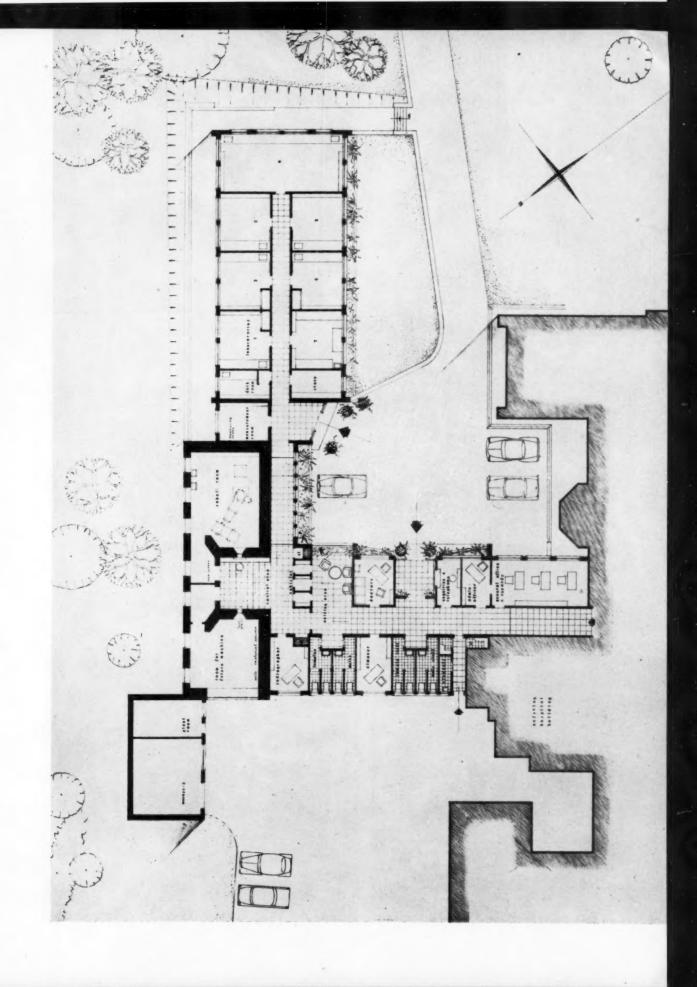
A Canadian radio-cobalt source of nominally 1,000

curies has been chosen as best suited for these purposes. It has been housed in a machine designed and made locally to meet the different requirements of cancer treatment on the one hand and chemical and physical experiment on the other. The room in which the machine operates has protective walls of concrete, 30in thick, and is adjacent to a suite of laboratories of modern design for chemical and physical work.

Implementation of the scheme had to be considerably accelerated when it was learned in October, 1954, that the radio-cobalt source would be delivered some ten months in advance of the expected date. Plans were developed rapidly and by the beginning of December work had commenced on the site. Overtime was worked continuously during the winter of 1954/55, and in the severest frost it was made possible to continue work on the contract by using coke fired braziers in various parts of the site. The building was completed in time to receive the radio-cobalt in May, 1955.

The new Unit is unique in Great Britain, in that, it has been specially designed for the dual purpose of radiotherapy and radiation research. The layout consists of a reinforced concrete building in which is housed the Cobalt machine, and a group of laboratories adjacent to the Cobalt room with a corridor connection to the main hospital. A series of ancillary rooms for general administration, medical and other consultations,

continued on page 366



Radiation Unit, Cookridge

together with a waiting room and lavatory accommodation are incorporated in the scheme.

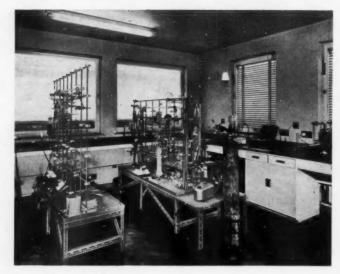
Construction

The building is a single storey structure with load bearing 11in brick walls. Flat roofs have been provided for the main Cobalt room and corridor connection to the hospital, whilst the laboratories have a low-pitched timber roof which has been covered with a green bitumen felt material. Concealed gutters have been formed and copper drips have been provided at the junction of the roofing felt and the eaves. Carda windows have been used for the majority of the rooms and on the south side of the building the windows have venetian blinds. The internal wall finishes are generally hardwall plaster and emulsion paint. Floors are of teak blocks in the laboratories and Cobalt room, and some offices; linoleum tiles in the corridors and waiting hall. The entrance hall has precast terrazzo tiles, with large pieces of exposed marble. Decorative tiles have been used on the wall facing the entrance hall and the waiting area to provide points of interest.

The furniture and fabric were under the control of the Architects and these have been carried out in a simple manner and to provide a certain amount of colour in the building.

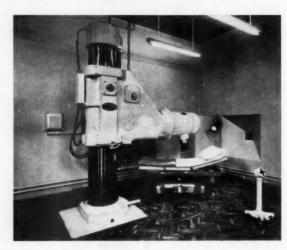
Indoor plants are used, and outdoor climbing shrubs amongst other plantings around the building. The outdoor painting is generally white with the underside of the eaves and the canopy to the entrance painted Kerry Blue colour.

The cost of the building was £45,000 excluding furniture and equipment.

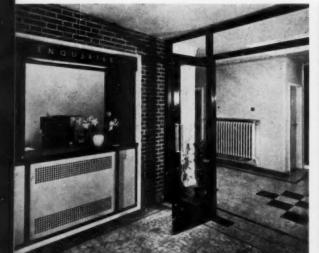


One of the laboratories

Cobalt machine in position for treatment

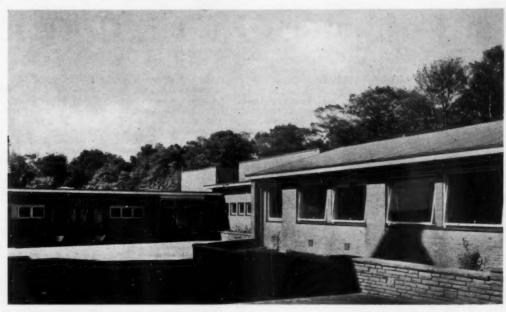


Waiting hall for patients





Entrance lobby enquiries



Laboratories on the right

Consulting Engineers:
R. R. Jennings and Partners.
Quantity Surveyors:
Rider Hunt and Partners.
George Wimpey & Co. Ltd.
Mechanical Engineers:
H. Morfitt and Son Ltd.
Electrical Engineers:
N. G. Bailey & Co. Ltd.
Cobalt Source Mounting:
The Hunslet Engine Co. Ltd

Subcontractors:

Bricks: Wray & Co. Ltd. Door Furniture: W. & R. Leggott Ltd Electrical Engineering: N. G. Beiley & Co. Ltd. Flooring: T. K. Yeates & Hanson Ltd. Semtex Ltd. Laboratory Fittings: Halstead Bros. Ltd. Mechanical Engineering: H. Morfitt & Son Ltd. Paint: Hadfields (Merton) Ltd. Roofing: Northern Asphalt Roofing Works Co. Ltd. Tiling: A. Andrews & Sons Ltd. Window: Holcon Ltd.

Main entrance



Information Digest

OFFICIAL PUBLICATIONS

 British Standard Specifications, from British Standards Institution, British Standards House, 2 Park Street, London, W.I. Telephone: Mayfair 9000.

B.S. 2760: 1956. Pitch-impregnated fibre drain and sewer pipes, price 4/-.

The specification covers the range of pipes from 2in to 8in diameter, so while examined specifically for drainage work clearly they may have other uses. Although only recently available through manufacture in this country, pipes of pitch-fibre have been used for over twenty years in Canada and the U.S. so have been fully tested. In fact this specification is based on the U.S. Commercial Standard No. 116/54 and has close resemblances to the Canadian version.

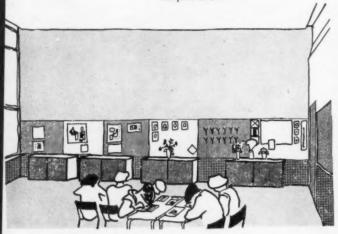
Much interest has been created by these pipes in the building trade and in professional circles, and the doubts about the wisdom of risking a trial should now be set at rest as this B.S. covers composition, interior smoothness, wall density, resistance to chemicals, kerosene and boiling water and to crushing and flattening. Couplings and fittings are also included and, pending the production of a Code of Practice, an appendix contains recommendations for laying and jointing.

Ministry of Education, Building Bulletin No. 9, June, 1956. Colour in School Buildings, 2nd Edition. H.M.S.O., price 5/-.

Revision of the British Standard colour range (B.S. 2660:1955) prompted this second edition and advantage has been taken of the opportunity afforded to make a number of amendments in addition to the references to the new B.S. serial numbers. Fifty-four colours have been selected and are displayed as the Archrome 2 range. A useful feature of this edition is that those accustomed to using the first edition have their attention drawn to the main alterations in the text of the present edition by marginal lines at the alterations. Two new features of importance are now incorporated, the first being consideration of the effect of reflected light as supplementary to direct daylight, from ceiling, floor and wall while the second deals with the colours of floors.

The Bulletin is virtually a text book on the use of colour, taking in turn the user, considering habits, activities and vision, the object of devising a colour reference

From M.o.E. Bulletin No. 9. Infants classroom; strong patterns confined to scale of children at low level with plain surface above.



system, together with the psychological effects of colour, suggestions in the form of monochrome illustrations of parts of a school, examination of day-lighting and reflected light, glare, dazzle, contrast and stimulous resulting from various colours and finishes. The use of colour on the elements of the building—columns, panels, windows, doors, fittings, etc., is considered and the Munsell and Ostwald colour reference systems are described and compared. The characteristics of paint or decorative finishes are also referred to in some detail and one appendix reports the L.C.C.'s experience in applying the Archrome Range to old schools. The Bulletin closes with a useful terminology for words having limited, restricted or special connotations as applied to colour.

The British Coal Utilisation Research Association. Annual Report 1955. B.C.U.R.A., Leatherhead, Surrey, price 10/-.

The Report gives the year's work on a wide range of research problems. These are mainly concerned with investigating industrial firing methods and burners, searching for improved combustion, higher efficiences and longer life for the equipment. Air pollution, methods of measuring chemical content and grit emission were studied, while coal was investigated as to types, sizing and tar oil extraction. The bulk of the Report is specialist reading but Programme IV Domestic Heating includes a very readable and instructive description of experiments with small-pipe While this is not a forced-circulation central heating. new idea, in that some architects have tried it out, it is still in the experimental stage as the Report shows. siderable saving in capital expenditure is visualized once the desirable automatic controls are available at modest cost, for \$in or 1/2 in bore pipes without header tank are satisfactory while as gravity returns are not needed, concealment of pipes and underfloor ducts are eliminated to a large extent. The experiments are more fully described in the B.C.U.R.A. Information Circular No. 124 (February, 1955) while the investigation of the methods of control are described in the Information Circular No. 141 (October, 1955).

Another investigation was the burning of small coals with small chain-grate stoker for household boilers which is still being pursued. Free-standing convector fires also came in for examination which resulted in rejection of some designs submitted for evaluation by the B.C.U.R.A. Experience has resulted in certain basic data becoming available to manufacturers' designers so as to enable them to avoid errors.

Wastage of unburnt gases from open fires has been measured, showing up to fifteen per cent wastage of the heat in the coal and in consequence disclosing serious loss of heating efficiency, wastage of fuel and atmospheric pollution.

While on the domestic plane, Programme VII 2 records that smokeless domestic fuel of a type preferable to coke for open fires has been evolved. This is the outcome of experiments in solvent extraction of coal; with the aid of ultrasonic vibration, this fuel is obtained from a high-volatile coal, and has the additional merits of being readily ignited and not disintegrating in rain.

Commonwealth Scientific and Industrial Research Organisation (Commonwealth of Australia), Division of Building Research. Report No. R-7. "Durable Concrete Floors for Factories".

A clear, comprehensive yet succinct account of the materials to be used and methods to be adopted in ensuring hard, dust-free factory floors is given in this Report. It deals with the types of cement available (Portland—three varieties—high-alumina, supersulphated, pozzolanic and blast furnace), aggregates (warning that rounded particles are conductive to slipperiness of surface) and water (and not being particularly fussy about quality—no tests are suggested).

Grading of aggregates is given, water/cement ratios and aggregate/cement ratio, pointing out that the "cement paste" is what determines the quality of the concrete subject to the aggregate being of suitable quality.

Slump and workability are considered and reference is made to possible advantage from adding a wetting agent

or plasticiser.

The processes to be gone through in considering the filling or hardcore, laying the concrete raft (recommending bays 15ft square when external but 30ft by 15 ft when internal) in mass concrete and surfacing the floors are described in practical language. Mixes for the raft are recommended as 1:2:4 for 4in thickness and 1:2:5 for 6in thickness but the special requirement for freezing chambers are also given, consisting of 4in min. no lines concrete at 1:8, waterproof membrane, then 2-4in air-entrained concrete. The mixers for the rafts are particularly interesting in view of the rather more rich mixes commonly used in this country without justification.

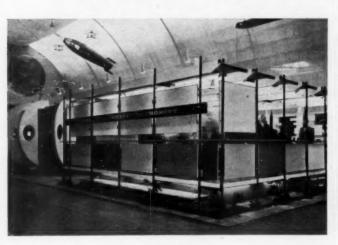
The specification for surfacing recommends $\frac{3}{2}$ in thickness when laid on "green" concrete, 1in thickness if laid one day after concreting and $1\frac{1}{2}$ in thickness on hard concrete. Mixes recommended are 1:1 sand:2 of $\frac{3}{2}$ in aggregate for power floating or 1:1: $\frac{1}{2}$ for hand floating, noting that in severe acid conditions a suitable "pozzolan" should be used to replace 5-10 per cent of the sand. Presumably pozzolana is more readily available in Australia than in Britain.

Trowelling methods are then given, and after that curing methods are described, including covering with polyethylene membrane, and it is noted that pozzolanic concretes benefit by prolonged curing.

Hardeners are described and paint treatments (chlorinated rubber lacquer, boiled linseed oil, etc.) and carpets such as bituminous mastic, fleximer compounds and tile payings.

Bulletin of Special Courses in Higher Technology. Part I. Autumn Term 1956. London and Home Counties Regional Advisory Council for Higher Technological Education, Tavistock House South, Tavistock Square, London, W.C.1, price 1/6d.

Higher skills and greater knowledge are in urgent demand while the facilities for higher education remain limited. The plan officially announced to increase the number of technical colleges from 9,500 at present to 15,000 should make access to special study more easy. This Bulletin is a guide to prospective students as to the



courses available, whether part-time or full-time, and both short term or extending over some years. The tuition available at each of the London and regional technical colleges is listed, each college, in alphabetical order, being taken in turn and the staff functioning and students for which the courses are suitable are briefly described. These courses differ from those available at most technical schools in being advanced courses or post-graduate. Hence the well-known London Regional schools which have courses in building and architecture are referred to only where they offer training at higher levels. The Bulletin has a full index to enable the subject to be found easily, and from this it is seen that building at such level is only dealt with at two colleges, in one case the subject being the Economics of Building while in the other case London building by-laws are offered as a subject for building executives and supervisors. Many of the courses are on management in one form or another, but most of them are concerned with chemistry and engineering. Thirty-four colleges are included, offering more than three hundred subjects.

 Occupational Psychology. April 1956. National Institute of Industrial Psychology, 14 Welbeck Street, London, W.I. Quarterly, 30/- p.a.

Analysis of work operations, training methods and effects of shift work are reported in closely reasoned and highly technical studies. The application of work-study methods to the building trade is making some progress which demands a thorough understanding of all the factors to be taken into account. None of the reports in this issue is directly applicable to the building industry, but they do give the line of approach which must be followed.

PROFESSIONAL PUBLICATIONS

 Annual Report 1955. British Iron and Steel Research Association, 11 Park Lane, London, W.I.

The research work of last year has produced some interesting ideas in iron making, improvements in steel making technique, structural design in connection with crane loading and methods for determining amounts of unrelated metals in iron and steel.

All these point to ultimate improvement and economy in the material and use of steel, but many investigations are being carried out on related subjects including control instruments and chemistry of steel, over a wide range of applications.

 Supplemental 5-Year Index. Journal of the American Concrete Institute, 18263 W. McNichols Road, Detroit 19, Michigan, price 35 cents.

Those interested in concrete practice in the U.S.A. will find in this Index a useful guide to papers published in the Journal during the years 1950-4. It supplements the 20-year Index published in 1950. There are two sections, the first alphabetical to enable the aspect of concrete work concerned to be found, while the second section summarises the subject matter of the particular paper under a numerical index. As might be expected the ground covered is very wide and papers are included on work or practice abroad such as Australia, Britain, Sweden and other parts. Each paper is available for purchase, the cost being quoted, but it is not clear whether they can be obtained in this country.

continued overleaf

Stand of the Central Electricity Authority at the Hulton's Boys' & Girls' Exhibition. On the left is a circular chamber with an encircling gallery for spectators to look down on a scale model of a typical town and its electrical services. Stand designed by Mather & Crowther, Publicity Agents.

Information Digest (continued)

TRADE ASSOCIATION PUBLICATIONS

• American Housing. Report of a Study Tour in the U.S. The Federation of Registered House Builders, 82 New Cavendish Street, London, W.I., price 2/-.

Private house building in the U.S. is roughly six times that of public housing and tends to increase as the latter declines.

A delegation from the Federation visited the U.S. to study the organisation and construction techniques of similar firms, to find out how house-ownership was encouraged and to maintain social contact with that country among house-builders and estate agents.

While it seems that there are roughly four groups into which the business is divided the first, consisting of the smaller builders averaging not more than 24 dwellings a year, yet manage to account for 46 per cent of the total number built privately. It is of particular interest that this group is credited with employment of architects as each house is "custom built". With such a high proportion of dwellings provided by this group it would seem that the Americans are more "architect conscious" than in this country. It is not clear, however, whether the architects are given credit for their designs.

The larger speculative builder is reported to employ specialists in each field for procuring the land, designing the layout and roads and in designing the houses. Virtually all trades are sub-contracted so repeats the practice prevailing here prior to the war. The layout illustrated is as lamentable as any of the many unimaginative layouts seen since the war in this country. The lavish use of land—each plot roughly a quarter of an acre in extent, wide roads, verges and front gardens—is perhaps not open to criticism where there is so much land. The absence of division fences, admirable where neighbours will accept it, emphasizes the spaciousness of the layout.

The rate of expansion of housing and the widespread nature of the estates result in some cases in public drainage not being available, hence septic tanks have to serve protein

Roads are often constructed to a lower specification than would satisfy highway authorities here, the width being acceptable at 20ft, but rolled water—or bitumen-bound surfaces are not usually acceptable.

House design and construction are reported in detail. It is noted that in some States planning consent could only be obtained for houses if an architect was employed and that the builder often considers it an advertising point to be able to say that his houses are "architect-designed", even though the average size is only about 1,100 sq ft. One curious fad brought out is the popularity at present of the "split-level" house, to such an extent that developers will grade the land to encourage this type of design having at the rear a lower ground floor of utility room and recreation room with above it an upper ground floor accommodating the bedrooms.

Frame construction in timber continues to be the most common form, to the extent of 86 per cent of all private dwellings. Various forms of sheathing, lining and roofing material are used while internal wet plastering is much reduced by the use of taper-edge plaster board and flushed-up nail holes. Resin bonded plywood is commonly used as roof boarding covered with bituminous felt tiles although the life of these is only about 20 years but renewable quite cheaply.

Considerable growth has been made in prefabrication both as to complete houses (eight per cent) and parts such as floor and wall panels and cupboard units. Pre-cut roof timbers are also available. Modular co-ordination is reflected in the standardisation of 16in width materials.

Thermal insulation requirement in some areas is not worse than "U" = 0.15 for external walls, a point which the delegation feel should be given much more attention in this country.

Heating by circulating warm air continues to be popular, but forced circulation hot water heating is gaining ground because of the more even temperature resulting.

As the average American household is reputed to operate at least 70 electric devices considerable thought is being given to the development of suitable wiring systems as those now installed must become inadequate before long.

Plumbing practice includes use of galvanized iron for soil pipes, press-button flushing valves to the exclusion of WWPs. Enamelled flushing steel basins and baths are used, many houses having two bathrooms despite the small overall size.

Kitchen equipment as reported conforms to the already well-known generous U.S. standard.

The Report goes on to deal with privately sponsored "New Towns" which are in fact "dormitory towns", although it is hoped that the new towns will attract industrial development. Shopping facilities were also examined.

The cost of building was studied and the productivity of tradesmen, the conclusion reached being that the latter is not greater than in this country by reason of greater application so much as through the use of mechanical aids and prefabricated units. An interesting comparison of costs is given in which a "semi-bungalow" of 1,600 sq ft, having two living rooms, three bedrooms, two baths, 25ft long garage and \(\frac{1}{2}\) acre of land, costs \(\frac{1}{2}\)60,250 which, with U.S. costs at least twice those in this country suggests a "home" selling cost of about \(\frac{1}{2}\)3,125 which would be an achievement in these times.

Fire Alarms in Factories. Fire Offices Committee, Fire Protection Association, 15 Queen Street, London, E.C.4.

The Committee have issued a pamphlet having this title which describes briefly the responsibility under the Factories Act, 1937, for providing audible alarms and then gives in outline a number of the alarm systems which are The present issue arises directly from the Keighley Mill fire, as a result of which it was found that there was considerable doubt as to methods available to factory owners. The pamphlet refers to manual alarms; electric, either manual or automatic alarms. The advantage that the automatic type have in giving warning of fire while the building is unoccupied is pointed out. Smoke defectors are not included. The pamphlet points out also that there may be liability to insurers and to others to give or have alarms. Tests of electric fire alarms are recommended to be given daily and through examination by the installing engineers every three months. The pamphlet draws attention to B.S. Code of Practice C.P.327.404. 402.501 (1951) Electric Fire Alarms, and to the fact that installation should be in accordance with the Rules of the Fire Offices' Committee for Automatic Fire Alarm Installations, obtainable from the Association.

Z.D.A. Abstracts Nos. 219 to 289. Zinc Development Association, 34 Berkeley Square, London, W.I. Grosvenor 6636.

While this collection of abstracts covers technical literature immediately preceding, April, 1956, it draws attention to the fact that the Association's Technical Reference Library operates a loan service open to all bona-fide inquirers, and covers world literature on the uses of zinc and zinc products. Information on any aspect of the use of zinc is also available. The abstracts included in this issue refer to zinc coating by plating and spraying with some applications to sheeting and to structural steel.

Cooking in New Homes. The Gas Council, I Grosvenor Place, London, S.W.I. Sloane 4554.

A new brochure has ben produced illustrating the patterns of cookers available and suitable for small dwellings,

although those described vary in size and quality, to which no clue is given. The virtues of each type are set out and advice is given on the placing of cookers in regard to draughts, day—and artificial—lighting, and attention is drawn to B.S. Code of Practice C.P.332.40 (1947) on installation. The claim is made that four out of five householders prefer gas cooking to any other form. Other equipment is mentioned in passing, such as drying cabinets, refrigerators, panel fires, sink and multipoint water heaters and incinerators which are so necessary where solid fuel fires are not provided. No technical data are given, the brochure showing various arrangements of gas equipment with emphasis on cooking. Reference is made to the Egerton and Simon Committees reports on the proper planning prior to building of all fuel and other services and to provision to be made for gas and electric services at the time of building whether the prospective tenant wants both or not, it being cheaper to make provision at that stage than to bring in a service after occupation has begun.

Institute of Welding. Detail design of welded structural

The Institute announces that a course of ten evening lectures on the subject commences on October 3, at the Junior Institution of Engineers, Rochester Row, London, S.W.1, for which the charge is 2gns and £1 12s 6d for members. The importance of sound economical design needs no emphasis and it is with the object of trying to meet the growing demand for competent designers that this course has been arranged, which includes arc welding process, welded joints, economies of welded design and various structural details covering application to framed structures. Limited accommodation only is available. My latest information is that the first course is filled, but there may be a second course.

TRADE PUBLICATIONS

Vizusell Catalogue and Handbook. Versatile Fittings (W.H.S.) Ltd., 55 Fetter Lane, London, E.C.4. Telephone: Fleet Street 1887.

This subsidiary company of the well-known W. H. Smith & Sons concern describes in detail this method of providing interchangeable and adjustable shelving and racking suitable for retail shops. The system consists in the main of channels into which brackets and other attachments can be located in position or adjusted quickly by using only a screwdriver. The metal parts

are of steel cadmium plated silver finish.

The design of the channels presumes that the walls will be panelled in some way, the channels normally being fixed to wall battens and the panelling material fitted between the channels of which there are two types, one being grooved on both sides to receive the panel boards. Into the visible space of the channels of about in are placed the roots of the brackets held back at top only by retaining clips inserted into the visible spaces and turned to grip the sides of the channels. The brackets are then held in position by friction only. Various fittings are available for the brackets such as pelmet struts, cornice strips and shelf clips. An alternative form of bracket allows of short shelves to be fixed to each vertical channel.

The system is further developed to allow of forming island stands and counters with or without infilling

panels.

Another device is a neat bracket for fitting into the perforations of pegboard, available as single hooks,

double, notched and raked.

For special displays a form of spring-loaded stanchion is available of which the major height is composed of back-to-back channels capable of reaching 12ft 64in. Three patterns of these are offered, into which brackets can be set in two or three directions. The stanchions can





Vizusell interchangeable and adjustable shelving and racking used with the architect's fittings, in Ryman's Bond Street shop, illustrated in this issue.

also be used to frame partitions for setting around special

Unit Review No. I. Unit Construction Co. Ltd., 34 St. James Street, S.W.I.

What started as a "house" magazine has now been developed as an annual review of the activities of this company. It deals with organizational matters, contract work completed and in progress, building methods and personalities in the firm.

Fidor 3. Fibre Board Development Organization Ltd., 47 Princes Gate, London, S.W.7. Telephone: KENsington 4577.

At the conclusion of the first three years since its inception, the fibre board companies have issued this brochure on its organisation, technical service (including information leaflets) and propaganda in various forms. The advantage of having one central organization to which to turn for advice on the characteristics, availability, and advice on use of practically every form of fibre board is undeniable. The brochure does not carry any technical information on any of the numerous boards available.

Tretol Specification Sheets. Tretol Ltd., Tretol House, The Hyde, London, N.W.9. Telephone: COLindale 7223.

The first three specifications have been received. These deal with (a) protection of structures against dampness below ground, (b) provision of bitumen membrane in solid concrete floors (illustrated by particularly amateurish

Information Digest (continued)

sketches which ought not to be put before any architect), and (c) protection of back of stone facing from mortar staining. Each specification gives the preparatory work to be done in cleaning or keying, the method of application and the grade of Tretol to be used and the quantities required or coverage per gallon. The specifications are designed to provide a continuous film as a barrier to water or water vapour penetration. Copies of these specifications are available free on request.

Pre- and Post-tensioned concrete products. Girlings Ferro-Concrete Co. Ltd., Great West Road, Feltham, Middx. Also at Rothwell, near Leeds, and Kirkintilloch, near Glasgow.

This brochure in addition to reiterating the advantages of pre-stressed concrete beams and planks as to economy in the use of reinforcing steel and lightness in weight, illustrates some of the less commonplace work carried out, from post-stressed aircraft taxi track to pre-stressed flag

Various designs of beams are shown and the point is made that while a 24ft long beam had a camber of about in prior to loading, the deflection with a test load 0.4 in excess of the design load applied was only in which is a negligible amount. Beams for special purposes are shown, such as the 115ft beams for B.E.A. hangars.

Heating and Air Treatment. Brightside Engineering Co. Ltd., G.P.O. Box 118, Sheffield 1. Telephone: Ecclesfield 3121.

Described in the Foreword as a series of "conversation pieces'', the book issued under the above title gives apparently all the answers to unquoted questions. Section I consists of technical data in the form of tables and dimensioned diagrams covering Heat Transfer Co-efficients for various forms of walling or sheathing ("U" values), Natural Air Change Rates, Heat Requirements for typical buildings based on cubic content, Thermal Insulation economics, Boiler House dimensions, and chimney data, and a number of others making eighteen in all, which should prove extremely useful when preparing sketch plans and making approximate calculations. The authors stress that specialist advice and schemes are still necessary

to ensure efficiency and practicality.

The remaining sections Nos. 2, 3, 4 and 5 are devoted to outlining the bases of Air Conditioning and Air Treatment, Heating and Air Treatment in Industry, Conditioned Comfort in Hospitals, etc., and finally, applications to General and Commercial Buildings. These four sections are virtually non-technical, mainly showing something of the range of problems which can arise in a variety of buildings. Most of the illustrations in the Sections show how equipment has been installed or buildings in which the company have provided services and all carry brief descriptions of equipment or the problem posed. final section is the least informative consisting largely of photographs of rather undistinguished buildings which contribute nothing to the technical understanding of the subject matter of the title.

Hiduminium Sheet and Plate: Technical Data. High Duty Alloys Ltd., Slough, Bucks. Telephone: Slough 23901.

This brochure has been prepared to assist users in the selection of the most suitable alloy for their particular application. The material conforms to BS and Ministry specifications under rigid manufacturing control. Gauges, maximum sizes, physical and chemical characteristics are given and alloys for various purposes-welding, brazing and soldering information is also given and where appropriate, advice on protection from dampness, tolerance tables, gauge and weight conversion tables and superficial conversion tables complete the brochure as a useful reference book for mechanical engineers rather more than those concerned with building.

(a) Lead Plymax for X-ray Protection, (b) Flush Doors. Venesta Ltd., Vintry House, Queen Street Place, London, E.C.4. Telephone: CENtral 3040.

The use of lead as protection from penetrative rays is well known but the technique of fixing simply and permanently is not at first glance so easy. The first of these booklets gives useful notes on the use of lead as the meat in a sandwich of plywood. There cannot be creep, sag or tearing because the sandwich is solidly cemented The weight of lead used is dictated by the

power of the X-ray apparatus.

The sandwich is supplied in panels of which the standard width is 24in, but other widths can be supplied when the necessity arises. To avoid joints in the height, panels up to 12ft can be supplied. The makers prepare panel drawings to suit the room shape. Where panels butt the fixing battens, of an plywood, have lead of suitable thickness cemented to one face so as to give protection along the lines of the joints. Fixing is by wood screws through the panels, the screws then being capped with plated lead-filled domes, thus ensuring that

at no point is protection incomplete.

Diagrams illustrate the material and the fixing methods. The second booklet describes the construction of Venesta solid core doors. These have blockboard interiors and are faced both sides with veneers, either ornamental to choice or for painting. Single doors are offered with two forms of lipping, either exposed or concealed and the lipping can be supplied to all four edges. The merits that solid doors do not resonate and are therefore quiet in closing, are by their weight resistant to sound penetration, can have locks, plates and openings located without restriction are pointed out. Thickness for door sizes are from 1in to 21in. The standard sizes offered are 6ft 6in and 6ft 8in in height and 2ft 0in, 2ft 4in, 2ft 6in and 2ft 8in in width. There is no reason given why BS standards have not been adopted. It is necessary to state when inquiring whether the doors are for interior or exterior use, as is the common practice. It is nevertheless a difficulty in the use of flush doors that the doors for internal use only cannot be identified from those with waterproof cement and are moreover not interchangeable. Despite the continuing acceptance of doors unsuitable for external positions it would surely be advantageous if waterproof cement only were used for flush door construction.

Isocrete Lightweight Concrete. Isocrete Company Ltd., 124 Victoria Street, London, S.W.I. Telephone: VICtoria 6780 and 5711.

An illustrated pamphlet has been issued on Isocrete and is available free of charge. It describes Isocrete as being composed of air-entrained non-communicating cells formed of ordinary cement. It is incombustible; vermin and rot proof. It also has good fire and frost resistance. Blockmaking on site employing the emulsifying agent and mill can be done with much saving in transport costs, while the weight range can be adjusted from 12lb to 90lb per cubic foot. It can be used in the mass for insulating pipes and for screeds when it can be brought to a smooth finish to receive any type of floor or roof covering. Prices are not quoted in the pamphlet.

Colt Ventilation. Colt Ventilation Ltd., Surbiton, Surrey. Telephone: ELMbridge 6511-5.

This firm offers a manual on ventilation matters for problems connected with existing and new factories. support, a service is available whereby a member of the firm's technical advisory staff can be made available to study the problems such as excessive heat, fumes, smoke and condensation. Detailed proposals can then be submitted by the firm to correct any shortcomings or to ensure satisfactory conditions in new factories, without any charge being made.

How one firm saved £9,000!



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Ind, Coope & Allsopp and many other famous companies.





It wasn't supposed to be an invitation. The trouble is so many old locks do no more than just keep the door closed (and sometimes not even that) whilst real security measures are non-existent. The safest course if you value your property is to re-equip all important doors inside and out with the world's most reliable locks — YALE. There are YALE locks and padlocks to meet every security risk. Here is an example:



M.555 LEVER MORTICE DEADLOCK

The latest lock for keeping out the uninvited 'guest' from lock-up premises. Designed to meet insurance requirements, it is a 5-lever deadlock operable by key from both sides. Differs are obtainable on levers only and not by use of wards, making it extremely difficult to pick. Its steel reinforced deadbolt and 10″ steel striking plate make it almost impossible to force. Available ex stock; literature on request.

Where there's a door there's a need for



Bricks

I WAS very interested to read in the R.I.B.A. Journal for July the note from the Science Committee on "Ordering Bricks To-day," as it contains some very useful information which we should all digest carefully. There seem, however, to be many points which still need to be made in discussions between the Science Committee and the Brick industry.

Better methods of handling bricks is very long overdue, but it seems unlikely that architects can aid such a development as the responsibility for the purchase and handling of bricks on any site is a matter between the brickmaker or brick supplier and the building contractor. Pallets are becoming much more widely available and are very generally adopted in many industries to-day, thus there seems no reason why this system of transport could not be really widely used in the brick industry. At the Works the pallets can be loaded easily with fork-lift vehicles on to lorries or railway waggons, and there are now quite a large number of jobs which have cranes available with which the pallets can be off-loaded into the right positions on the site. The great advantage of using pallets is that the bricks should suffer much less damage than that to which they are normally subjected by the innumerable handlings to which they are subjected.

The points made on brick sizes are particularly interesting in these days of assembly of bricks with an ever increasing quantity of prefabricated components such as structural frames, concrete surrounds to openings, window frames, door frames, and the like. Added to this is the prospect of the introduction of modular co-ordina-tion which, in itself, would seem to demand as high a precision of dimension as is commercially possible in each material. Prefabrication demands close limits of size for all components with minus manufacturing tolerances on nominal sizes only and never plus tolerances as these make the assembly of units together quite impossible. The introduction of modular co-ordination, whatever basic dimension is finally selected, and even if it is 9 inches, seems as if it will necessitate the changing of many brick makers' sizes to ensure that the bricks are within acceptable limits. Even if supplies comply with the requirements of B.S.657, the sizes are too variable as this B.S. does not now lay down a size, even with tolerances, for individual bricks. The sizes given are only nominal, and the actual sizes are based on measuring the overall dimensions of twenty-four bricks placed in contact, in various ways, when the combined dimensions must lie between two given dimensions which are quite widely apart; for example, the combined lengths of the 24 bricks may vary within a difference of 6 inches. I fully appreciate the difficulties of variation in dimension resulting from the burning of natural clay, but if bricks of a nominal given size are to be used with ease, it is essential that they should always be less than a certain defined size, with as little variation as is reasonably possible on these sizes. If brick sizes have to be changed to provide a maximum size such as the 84 inch suggested by the Science Com-mittee, it might be possible to select really convenient sizes and perhaps also new shapes, to suit modular coordination, as appears to have been achieved in some other countries. The fact that we have, in this country, two heights of bricks, seems to defeat the benefits which standardization of bricks might provide in relation to all those other materials and components which have to be assembled with them.

I have every sympathy with the architects who stressed the need to be able to build their walls with fair faces on both sides. I do not think the brick industry is helpful in suggesting that such bricks are available now if one is prepared to pay additional charges for having them gauged individually; perhaps the clay brick trade does not appreciate that its competitors, sand lime and concrete bricks, supply bricks whose variation in dimension between deliveries and even between individual bricks in a delivery are very small, so that if the clay brick makers wish to compete, they ought to follow the example now set to them by supplying bricks of the sizes wanted at the standard price. I have recently been examining clay brick walls from the aspect of being able to build them fair face on both sides, and I have also been measuring the actual built sizes of both freestanding piers and piers between openings. Few fair face walls are really as fair face as one would like, even in 41 inch walls, and in 9 inch walls they are nearly always very rough in appearance, due to the variable dimensions of the bricks, while the piers are very frequently not of the dimensions called for because the bricks in some courses are over long to assemble to the precise dimensions, and the course with the longest bricks sets the dimension of the pier. A paragraph in the Science Committee Note relates to half bricks and the need for these to be available. It certainly would seem questionable whether, in most brickwork, there is any necessity to make and supply half bricks, as bricks are cut so easily, although this often means that one half of the brick is wasted as the bricklayer seldom feels inclined to pick up the half brick he has cut off for use when the next half brick is wanted.

On the subject of variations in colour between batches in different deliveries, one can but assume this

normally arises from the system of firing used, and because clay is, broadly speaking, used as it is dug, and consequently does not have precisely the same nature in its natural state throughout a large quantity. If precision of colour between batches is required, it would seem that it would be necessary to mix clay very carefully to a predetermined analysis, and then to fire in a form of kiln which provides the conditions for exactly similar firing conditions. Tt. seems a little surprising that the brick makers should have asked to be notified what the full requirements are for a single building, to ensure constant colour, as one would have expected when a contractor places an order for the bricks for a building he would normally state the whole requirements for the job in his order, particularly in regard to facing bricks, the supply of which is seldom by any means easv.

The paragraphs on the subject of coloured glazes on bricks is an interesting demand as until at least recently architects have not normally been very partial to the use of glazed bricks. One is a little uncertain as to whether they were talking about full size bricks with a glazed face or about brickettes, which are available and used in considerable quantities in These glazed some other countries. brickettes, if my recollection serves me correctly, are about 2 inches wide, 6 inches long, and half an inch thick, and are available in a very wide range of colours, many of which are often undesirable colours. I think it a good idea to have an agreed colour range which links with B.S.2660 for the colours of paints for building use, but I think this should be issued as a completely separate British Standard, as the range of colour would need to be very much more limited and might need to take account of the different texture. Such a range might well be linked with an amended British Standard vitreous enamel range, so that the colours could be applicable not only to glazed bricks, but for sanitary appliances, kitchen fittings, kitchen equipment such as cookers refrigerators and the like.

The brick interests seem to be rather slow in providing the answer to the demand for perforated bricks or blocks for heat insulation purposes. They appear, through their slowness to make changes, to have lost out to the concrete block manufacturers. I have always been puzzled as to why a greater use of perforated bricks has not been made, as I understand they reduce the demand for fuel, which is a very considerable part of the cost of making bricks, thus any saving in fuel should provide bricks at lower prices and at the same time they are less in weight. The Building Research Station seems to have offered the industry quite a lot of information on this aspect for many years, but so far very little production seems to have resulted. The development of clay

Bricks

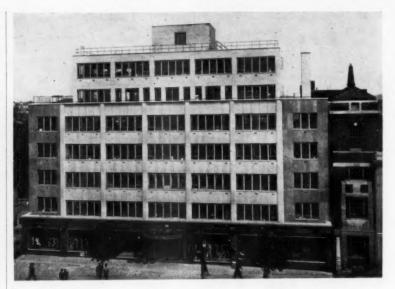
blocks in this country seems to be far behind that of a good many other countries in Europe, and consequently one looks forward to a report from the industry at its next meeting with the Science Committee.

The brick makers wanted the pro-fession to know that they could co-operate better if architects would tell them the use they had in mind for the bricks they are ordering, to ensure that the bricks supplied are suitable for the purpose. The information which the architects often lack seems to be a description of the qualities that should be looked for in bricks, to meet the various situations in which they are likely to be used. A little more information from the brick industry, and a few less, and often very deceptive, coloured pictures of their products would be a much better way of encouraging the architect to

use the industry's products.

It seems to me that the representatives of the brick industry at this discussion were trying hard to avoid receiving demands from the architects to produce bricks which had taken advantage of scientific development which must have taken place in recent years and which could be applied in their industry. The Building Research Station seems continually to be advocating developments, but unfortunately one seems to have little indication that any advantage is taken of the Station's work. For example, we heard much about mixing pulverized fuel ash with clay, which from the experimental work, produced quite satisfactory bricks and should be advantageous in price. On the whole, it would seem that most of the industry delights in carrying on just as its grandfathers did, but it is my belief that if progress is not made by the industry to keep up with scientific developments changing demands in the constructional industries, it is very possible that the architects will make increasing use of the many alternative materials and methods of construction, with a consequent very detrimental effect on the brick industry. Bricks have been a relatively low cost material, but as fuel and labour prices rise, many of these advantages are fading away. I feel sure that with changes in the products, and perhaps changes in the methods by which they are used, we might have larger units which are cheaper to lay, units with a higher insulation value which, if my information is correct, may mean less fuel per unit of face area, and perhaps a price reduction for the bricks themselves. If one can gather anything from a comparison with the concrete industry, it would seem that it is cheaper to lay concrete blocks than concrete bricks, so is it not possible that the same would also be true in the field of clay?

DUTCH UNCLE



The new headquarters building for the world sales organisation of Gestetner Ltd. in Euston Road, N.W.I, was opened on Monday, September 3 by Mrs. S. Gestetner supported by Lord Nathan. Architects: Verity & Beverley. General Contractors: Sir Robert McAlpine & Sons Ltd. The main entrance doors are set back from the building line in a glass sided lobby. Lift doors open directly on to office floors without an intervening corridor. The ceilings of all floors are suspended acoustic tiles with "Lumenated" lighting installations of fluorescent tubes and corrugated perspex sheets.

IMBER NOTES

SOFTWOOD stocks are now growing and there is a full range of supplies for all building requirements. Prices are most competitive, but there has been little change in the prices charged by the shippers, and the general opinion in the timber trade is that there will be only minor variations from the price structure now cur-rent. This leaves little scope for reductions in the retail prices, and the Government policy established in the Board of Trade strategic softwood stock sale prevents any expectation of bargain parcels from that quarter. There is still a good stock to be sold, however, and it will be some time before all the timber has been taken

Russian softwood is still selling from the 80,000 standards offered in the last stocknotes, but here again there were no price reductions, and it is doubtful whether the full quantity will be bought, though the Russians have indicated that they will not be making any reductions on prices.

The quality of the softwood being received this year is generally good, and importers are well pleased with the standards of manufacture maintained by most shippers. Competitive trade conditions have had much to do

with this change in the standard. In the hardwood trade there is still a large volume of American red oak to be sold from the Government stock. Japanese prices are low, but some of the other hardwoods are rising in value, such as ramin (partly due to the imposition of export controls) and mahogany. Through the country there are large hardwood stocks and quotations are in favour of the buyer, especially where credit terms are not

Plywood trading is hesitant, with the market very weak. The Government sale of 15,000,000 sq ft of Canadian Douglas fir plywood and Russian birch plywood will not help the market so far as maintaining prices is concerned, but even without such help the Russian and Finnish brands can be obtained at least 20 per cent cheaper than the 1955 prices. The small purchases by the furniture trade have brought about this condition in the plywood market.

Fibreboard prices are fairly static at the moment, with stocks most ade-quate to meet building trade requirements. Both British and foreign manufactured hardboard and insulating board can be obtained without

delivery delays.

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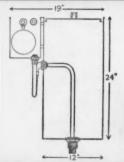
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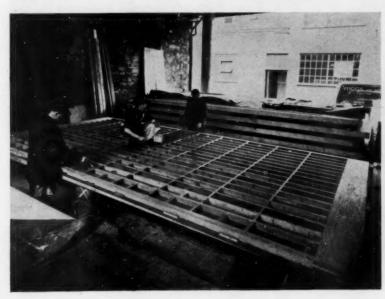
Industrial Notes

- During the past year the turnover of Parmiter, Hope & Sugden Ltd. has increased by approximately 23 per cent, and this has been accompanied by a good recovery in profit before taxation, which has increased to about £70,000 from about £50,000 achieved in the previous year. Mr. John V. G. Hope has been appointed Joint Managing Director, and Messrs. W. G. Corless and R. H. Dean have joined the Board of Directors.
- Clarke Ellard Engineering Co. Ltd., who have for ten years manufactured Sliding Door Gear and Mechanical Handling Equipment under that name, have now changed their name to "Ellard Sliding Door Gears Ltd." This change is due to the resignation of Mr. A. H. Clarke, and the fact that the Company has decided to discontinue the manufacture of Mechanical Handling Equipment and concentrate entirely on "Ellard" Sliding Door Gears. Their range of door gear includes "Estate", "Radial", "Overdor", "Rolls", "Bantam", "Cabinet", and "Simplex".
- ♠ Mr. John Dexter, M.C., General Manager of Maycrete Ltd., has been appointed Managing Director of the company. Before joining Maycrete, suppliers of "Maylin", "Shipston" and "Maycrete" prefabricated buildings and building systems, Mr. Dexter was a Director of Trusteel Corporation (Overseas) Ltd.

- The International Synthetic Rubber Company, whose £5,000,000 plant is now being erected at Fawley, Southampton, announce the appointment of Mr. Kenneth G. Burridge as their works manager, and of Mr. Alastair F. Crawford as secretary and accountant. Mr. Burridge, who is 31, is manager of the chemical engineering section in Dunlop's central research division, and for the last four years has been working on the process design of the synthetic rubber plant now being built at Fort Dunlop. Mr. Crawford (28) is assistant export accountant with Dunlop.
- Tanalised timber—proof against attack by termite and mould-has been recommended for the 750 bungalows now being erected in this country for United States Air Force personnel and their families. The building contract brought this country 5,000,000 dollars. It was awarded to Unity Structures Ltd. The contract was awarded through the Air Ministry. American experience of timber dwellings lead to the specification that timber in the bungalows must be vacuum/pressure impregnated with a timber preservative and Tanalith salts were recommended. Bungalows are being erected at nine air bases in the U.K. One of the biggest sites is at Alconbury in Huntingdonshire, where more than 200 are being built. All of the homes utilise Tanalised timber. Ninety-two are of the two bedroom type, 108 three bedroomed and ten more are convertable.

Softwood frames doors to be faced with a single sheet of plywood 20ft 0in x 10in in size for the Port of London Authority's No. I shed at Tilbury Docks now under construction, seen in the course of fabrication on a jig. The large Makore faced plywood panels were manufactured by Thames Plywood Manufacturers Limited, and the doors now being fabricated by Higgs &

Plywood Manufacturers Limited, and the doors now being fabricated by Higgs & Hill Limited were designed by the T.D.A. to the requirements of the Chief of the P.L.A.



- The Public Works and Municipal Services Congress and Exhibition opens at Olympia on Monday, November 12. During the week that the Exhibition remains open more than 360 exhibitors will provide a display embracing every class of machinery, plant, material and appliance essential to public and local authorities anywhere in the world. The Exhibition will be even more comprehensive than in previous years. In the course of the nine sessions of the Congress, which will be opened by the Minister of Housing and Local Government, the papers will cover an unusually wide field of interest. The titles give an idea of the diversity of the subjects to be covered. include: The Re-Location of Employment; Skidding Accident Sites; Hy-giene and Sanitation in the Fish Industry; Essentials of a Modern Engineer; the Post-War Flat Develop-ment in Europe; and Control in Mixing and Placing Concrete.
- The Directors of George Cohen Sons & Co. Ltd., announce that the consent of the Capital Issues Committee to an issue of £1,500,000 unsecured loan stock has now been received. The terms on which this stock will be issued will be announced later.
- The Metal Window Association has, in accordance with its undertaking given on January 26 last, held firm the selling prices for Standard Metal Windows for over six months.

The Association has now, in the light of the latest cost figures, prepared by its independent Cost Accountants, revised its selling prices for Standard Metal Windows in order to take into account the increases in cost and the economies in manufacture which have taken place. The effect is to increase the price of some windows and to reduce that of others.

These new prices come into force on September 3, 1956, and in respect of them the Association is prepared to give a further undertaking.

- "Subject to unforeseen and exceptional circumstances, The Metal Window Association undertakes to hold the selling prices of Standard Metal Windows firm for as long as possible and at least until the 1957 Budget."
- Following the recent retirement of Mr. H. V. Harris as Chairman and Managing Director of Bennis Combustion Ltd., Little Hulton, Walkden, Manchester, the Board of Directors announce the election of Mr. George Moreton Mellor as Chairman of the Company, and the appointment of Mr. Mellor and Mr. Fred Howarth as Joint Managing Directors.

NEW PRODUCTS

Simplex Electric Co. Ltd. will be marketing a number of new products A fluorescent lighting fitting specifically designed for corrosive atmospheres is the 5ft, 80-watt Endura fitting. It is completely sheathed in corrosion resistant P.V.C. and all apertures and connections are sealed by compression joints. A new range of industrial reflectors, The Arvit, incorporates the patent No-Score lampholder for screw cap lamps. An addition to the Screw-glass range of well glass fittings is the 100-watt size, Fig. 1. Manufactured in either aluminium alloy or vitreous enamelled cast iron with top and side entry attachments and reflectors common to both 60 and 100-watt sizes.

Armstrong Cork Co. Ltd. announce that thirteen new colours have been added to the range of Accotile Thermoplastic flooring. These include primrose yellow, French turquoise, rose pink and chartreuse green. Eight of the previous colours have been discontinued, leaving 26 in the Accotile range. All tiles are available in standard sizes of 9in x 9in or 12in x 12in and in thicknesses of 1/10 in 1/10 in. Die cut picture insets and feature strips are also available.

Quasi-Arc Ltd. have produced a new metal rectifier welding set No. MCR375. Designed for single operator welding duty, it consists of a transformer, regulator, and selenium plate metal rectifier. Operated from a three-phase, 50-cycle supply having an imput range of 360/440 volts; the welding current control, which is

stepless, covers the range of 30/37 amps d.c. The equipment is for use with all types of electrodes from 16 SWG to 1/4in.

"Luxol" Enamel and Flat Wall Paint are the latest additions, Fig. 2, to the range of British Paints Ltd. The outstanding claim of these two products is that one coat will cover any colour, thus eliminating the use of an undercoat. The enamel is suitable for walls (kitchen and bathroom), furniture (raw or previously painted wood) and any normally prepared interior or exterior surface, and the flat wall paint is suitable for walls, ceilings and indoor woodwork. Both available in a variety of colours and may be applied by brush, roller or spray-gun.

W. E. Bray and Co. Ltd. have introduced the fully-tracked "Bray-loader 25" shovel, Fig. 3. The machine is hydraulically controlled, has a lifting capacity of 3,000lb and employs a 1 cu yd bucket. Attachments include bulldozer blade, fork lift, crane hook and snowplough. Positive bucket control enables a full load to be carried near to ground level. The power unit is a 42 b.h.p. Ford Diesel engine. Digging depth is 9in and maximum discharge height 9ft.

A colourless protective finish for cork, timber, linoleum and other porous floor surfaces has been introduced by Factron Products Ltd. This hardwearing coating is easy to apply and claims a non-slip finish which





prolongs the effective life of the surface besides preserving its appearance. A two-coat application of Factron Floor Seal it is claimed will prevent moisture, dirt, oil and grease from discolouring and damaging floor surfaces.

Expandite Kraft Union is a building paper with a sandwich layer of bituminous composition which has many applications. Under concrete it may be used to prevent loss of water into the subgrade. It also provides a smooth surface for the slab. The paper is also used as a blanket for curing concrete, for draught and moisture proofing of timber floors, walls or roofs or as sarking under tiles, slates and tile hangings.

Blundell, Spence & Co. Ltd. have introduced an entirely new range of liquid stainers. There are seven basic colours—black, venetian red, ochre, lemon chrome, permanent scarlet, permanent blue and fast green as opposed to thirteen in the old range which has been withdrawn. The new stainers are stronger, mix more easily and can be used for tinting any decorative surface apart from water-thinned paints.





RUNNYMEDE RUBBER COMPANY LTD . 6 OLD BAILEY . LONDON . E.C.4. . TELEPHONE CITY 2471



Dockerlux

THE FINEST GLOSS PAINT IN THE WORLD



Vydok

THE PERFECT EMULSION PAINT

Matt or Eggshell



Fillex

DECORATORS' FILLER

Here is a NEW general purpose filling compound, designed specially for the decorator.

FILLEX, which is supplied in ready-for-use paste form, can be used for filling in cracks in plaster and skimming rough surfaces. It is suitable for most surfaces other than wood or metal.

FILLEX

* is suitable for INSIDE and OUTSIDE work.

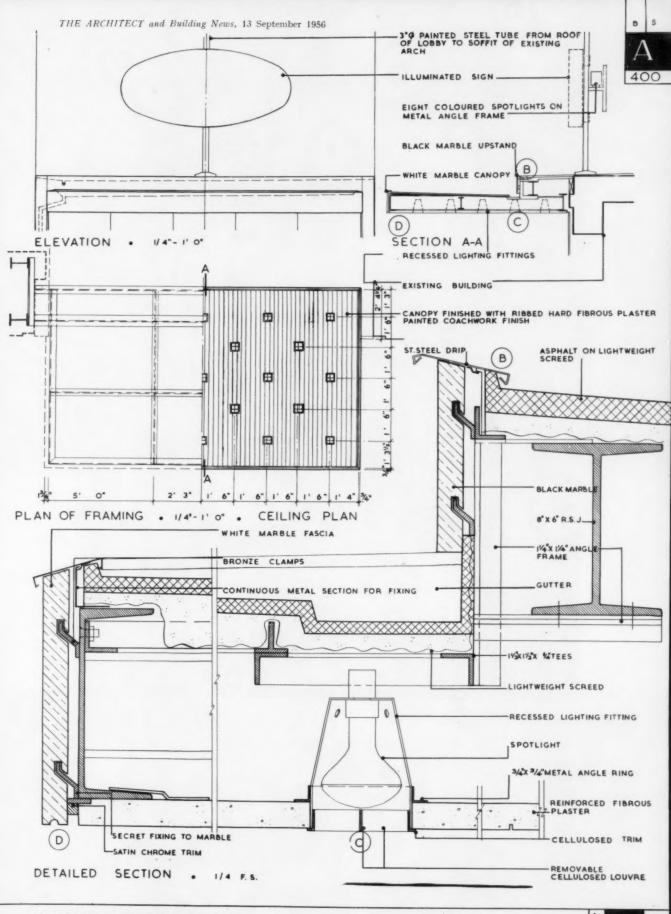
 \bigstar has exceptional adhesive properties and can even be used on glazed tiles to produce a smooth surface for painting.

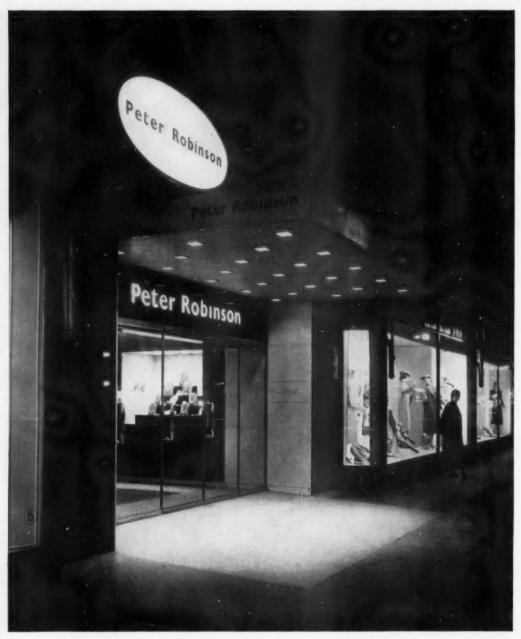
* has excellent keeping qualities (but should be protected from frost).

* is supplied in 4 lb. and 16 lb. tins.

PRICE: 4 lb. tins at 1s. 6d. per lb. 16 lb. tins at 1s. 3d. per lb.

DOCKER BROTHERS . LADYWOOD . BIRMINGHAM 16





CANOPY DETAIL, SHOP, OXFORD STREET ARCHITECTS: DESIGN RESEARCH UNIT



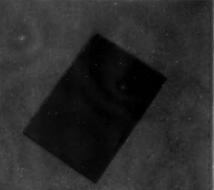
YEOMAN LIGHT RED $64' \times 13''$ approx. weight of tiling 1000 lbs. per sq.



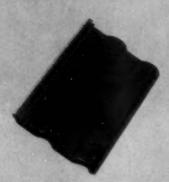
LUDLOW ANTIQUE 15' × 9"
approx, weight of tiling 900 lbs. per sq.



PLAIN FULL GREEN · 10½" × 6½" approx. weight of tiling 2000 lbs. per sq.



- PLAIN DARK RED - 101" × 61", approx. weight of tiling 2000 lbs. per sq.



YEOMAN BROWNSTONE · 164" × 13" approx. weight of tiling 1000 lbs. per sq.



LUDLOW COTSWOLD GREY, 15 × 9 approx. weight of tiling 900 lbs. per sq.

MARLEY offer the widest selection of roof tiles in the world in five main types — PLAIN TILES, ANGLIA, YEOMAN, LUDLOW and WESTWOLD.

All Marley Roof Tiles are covered by the Marley dual guarantee:

- A. That Marley Tiles will not laminate or decay for 50 years.
- **B.** When fixed by Marley craftsmen, they will be maintained free for 10 years.

The Marley Tile Company Ltd. Sevenoaks, Kent. Sevenoaks 55255.





"Not for an age—but for all time"

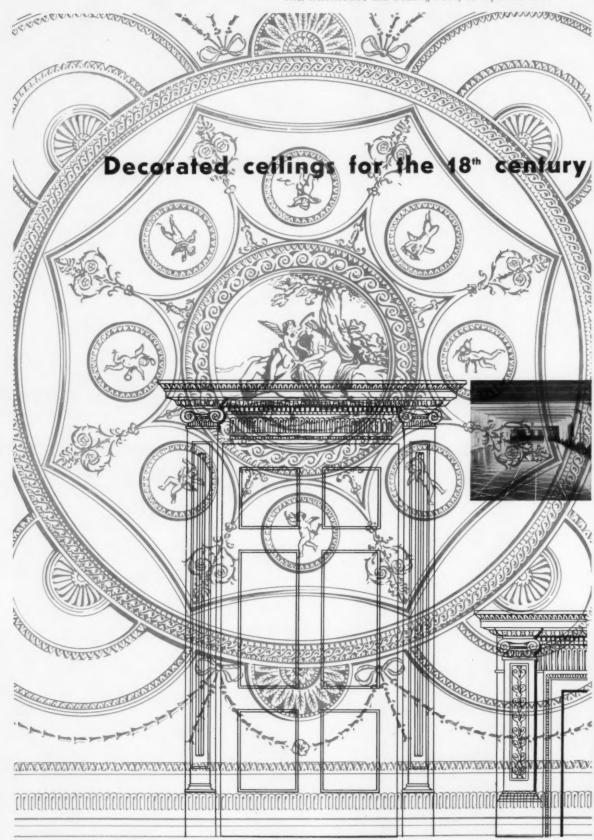




ANGLIA BRICK RED $15" \times 9"$ approx. weight of tiling 900 lbs. per sq.



All weights are based on normal gauge for the type of tiling mentioned.



-decorated floors for the twentieth

When elegance was the symbol of culture, Mr. Adam obliged the nobility and gentry of his time by giving their grand salons decorated ceilings worthy of resounding to the music of Mozart and Haydn. Today the ghosts of that spacious age would find that interior decoration, no longer confined to privilege and rank but the common possession of all, begins at floor level. Semastic and Vinylex Decorative Tiles offer the modern designer a freedom of design and colour which he uses to wonderful advantage, bringing to public buildings, office blocks, cinemas, schools, cafés and private dwellings an elegance that will bear comparison with the decoration of any age, past or present.











SEMASTIC AND VINYLEX

DECORATIVE TILES

Products of a Dunlop Company

WRITE FOR FURTHER INFORMATION TO SEMTEX The Flooring Specialists SEMTEX LTD., SEMTEX HOUSE, LONDON, N.W.9 HENDON 6543

CANADIAN

Western Red Cedar

a warm toned wood that combines good working qualities with exceptionally high resistance to decay and changes in moisture content.

TYPICAL USES

Boat construction, fishnet floats, conduits and shingles for roofing

Exterior finish, weather boarding or siding, window sashes, greenhouse construction

Fence-posts, telegraph and telephone poles, piling Cabinets, panelling, clothes closets and chests Pattern making and pencil slats

SPECIAL ADVANTAGES

Seasons readily with very little shrinkage — retains size and shape

Very durable in contact with soil or in other positions favouring decay Straight grained — splits readily and uniformly Good glueing properties

Quite soft and light—takes smooth satiny finish takes stains and paints well

FOR FURTHER INFORMATION concerning Canadian woods contact The Commercial Counsellor (Timber), Canada House, Trafalgar Square, London, S.W.I

WOOD

nature's best building material



Reproduced here is figure of Western Red Cedar.
This advertisement is one of a series featuring Canadian Douglas Fir, Spruce, Red Pine, White Pine and Pacific Coast Hemlock.



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		CARL COLOR VINE DO

Reader's Name and Address.....

Profession or Trade.....

Notes below give basic data of contracts open under locality and authority which are in a bold type. References indicate: (a) type of work (b) address for application. no town is stated in the

CONTRACT • NEWS •

OPEN

BUILDING

ASHBOURNE R.C. (a) Erection of a house at the Cubley Waterworks pumping station. (b) Council's Surveyor, Compton Offices. (e) September 29.

AYLESBURY R.C. (a) Erection of ten dwellings on the Quainton estate. (b) Raymond C. White, 4 Temple Square. (c) 2gns. (e) September 25.

BARRY B.C. (a) Erection of 20 shops with two-storey maisonettes above to-gether with ancillary works at Winston Road, Colcot Estate. (b) Borough Engineer, Town Hall. (c) 2gns. (e) October 1.

BEDFORD B.C. (a) Erection of nine shops and 10 maisonettes with garages and store on Putnoe estate. (b) Borough Engineer, Newnham House, Horne Lane. (c) 3gns. (d) September 20.

COLWYN BAY B.C. (a) Conversion of the Flagstaff Gatehouse, Old Highway, into two self-contained cottages. (b) Borough Engineer, Whalley Range, Lansdowne Road. (e) September 28.

COVENTRY CORPORATION. Erection of a seven-class primary school in Dunchurch Highway estate, to be built in Vic Hallam's "Derwent" built in Vic Hallam's "Derwent" System. (b) City Architect and Planning Officer, Bull Yard. (c) 3gns. (d) September 21. (e) October 22.

DONCASTER R.C. (a) Erection of 8 dwellings at Holywell Lane estate, Braithwell. (b) Council's Surveyor, Council Offices, Nether Hall. (e) September 21.

DONCASTER B.C. (a) Erection of Sycamore (Cantley) junior and infant school. (b) Messrs. T. H. Johnson and Son, 20 Priory Place. (c) 3gns. (d) September 28. (e) October 15.

.

DURHAM C.C. (a) Carrying out additions and alterations to Dinsdale Park Residential School, and alterations DURHAM C.C. to Felling Prospect House Youth Centre, (b) County Architect, South Street. (d) September 19.

EIRE-CORK C.C. (a) Erection of 42 dwellings at Rathmore housing scheme. (b) City Manager and Town Clerk, City Hall. (c) 10gns. (e) September 25.

ESSEX C.C. (a) Complete external painting and general repairs at Grays Quarry Hill junior mixed and infants school. Approx. cost £2,900. (b) County Architect, County Hall, Chelmsford. (d) September 22.

address it is the same as the locality given in the heading (c) deposit (d) last date of application (e) last date and time for submission of tenders. Full details of contracts marked * are given in the advertisement section.

DENNISON KETT

CO. LTD.

ROLLING SHUTTERS

COLLAPSIBLE GATES & GRILLES :: IRON DOORS STAIRCASES :: LIFTS

KENOVAL HOUSE 226-230, FARMERS ROAD LONDON, S.E.5. Phone: RELiance 4266

WATERPROOFS AND PRESERVES ALL MASONRY ASK FOR SZERELMEY STONE LIQUID NO. 103

SZERELMEY SILICONE

SZERELMEY LTD. 175 Rotherhithe New Rd., London, S.E.16 HIGH QUALITY

WHITE FACING BRICKS

(S.P.W. BRAND)

As supplied to the WAR OFFICE, H.M. MINISTRY of WORKS, AIR MINISTRY.

Sample and Brochure sent on request

M. MCCARTHY & SONS, LTD.

BULWELL - NOTTINGHAM

OVER OUR HEADS YOUR PRESTIGE AND OURS

When you specify our built-up roofing you specify a century of experience in the best products obtainable. Thus our prestige becomes your prestige and vice versa.

ENGERT & ROLFE LTD

LONDON E 14 (EAST 1441) and THE QUAY EXETER



BOSTWICK

METALWORK

OF EVERY DESCRIPTION & OUTSTANDING EXCELLENCE

BOSTWICK GATE & Co. Ltd.

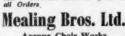
Original Patentees of the Collapsible Gate.

HYTHE ROAD, WILLESDEN, N.W.10 Telephone: LADbroke 3661

CHAIRS

OF SUPERIOR QUALITY

CHEAP Chairs for Canteens, etc. Personal attention given to all Orders



Avenue Chair Works, West End Road. High Wycombe.





UNBREAKABLE PLASTER VENTILATORS, LOUVRES AND GRILLS

Full Particulars & Sample on request from COZENS VENTILATORS LTD. Kingswood Road, Penge, London, S.E.20 SYDENHAM 8575 FAREHAM U.C. (a) Erection of 45 houses at Fareham Park estate. (b) Council's Engineer, Westbury Manor. (c) 2gns. (e) September 26.

HASLINGDEN B.C. (a) Erection of four shops with two-bedroom flats over, on the Broadway estate, Helmshore. (b) Borough Surveyor, Municipal Offices, Haslingden, Rossendale. (c) 2gns. (e) September 29.

ILKESTON B.C. (a) Erection of 92 houses at Kirk Hallam estate, No. 2 (b) Borough Surveyor, (c) 2gns. (e) October 2.

ISLE OF WIGHT C.C. (a) Erection of proposed grammar-technical school, Gunville, Newport. (b) County Architect, County Hall, Newport, I.W. (c) 3gns. payable to Council. (d) September 26. (e) November 19.

LEEK U.C. (a) Contract No. 36. Erection of 40 flats and appurtenant siteworks at Westwood Heath Road. Council's ouncil's Architect, Town Hall, Staffordshire. (c) 2gns. (e) September 22.

LIVERPOOL C.C. (a) Erection of (1) two houses at Dewsbury Road, and (2) 12 flats at Cornwallis Street, Liverpool, 1. (b) City Architect, Blackburn Chambers, Dale Street, Kingsway, Liverpool, 2. (c) 2gns. (e) September 20.

LIVERPOOL C.C. (a) Erection of 50 flats at Aigburth Drive-Linnett Lane, Liverpool, 17. (b) City Architect, Blackburn Chambers, Dale Street, Liver-pool, 2. (c) 2gns. (e) September 20.

LUTON B.C. (a) Erection of proposed kitchen and dining hall extensions, new classrooms, and alterations to existing premises at Luton Grammar School. (b) Borough Architect, Town Hall. (c) 2gns. (e) October 4.

MAGOR AND ST. MELLONS R.C. (a) road drainage and sewage works at Blacktown, Marshfield. (b) Messrs. Blacktown, Marshfield, (b) Messrs. Powell and Alport, Martins Bank Chambers, High Street, Newport. (c) 2gns. (e) September 27.

MARLBOROUGH AND RAMSEY R.C. (a) Erection of two pairs of houses and construction of a small sewage disposal works at Aldbourne Road, Baydon (b) Council's Surveyor, Council Offices, London Road, Marlborough. (e) October 1.

NORFOLK. (a) Alternative tenders are required for (1) complete demolition of main block, (2) demolition of the main block, but retaining and adapting the S.W. wing for storage purposes, at Wroxham Hall. (b) G. H. Dickinson, 53A High Street, Grantham. (c) 3gns. cheques payable to Trafford Estates.

PLUMBING AT YOUR FINGER

Publication of a new series of information sheets dealing with plumbing design will commence with the September issue of The Plumbing Trade Journal.

The sheets have been planned to suit the requirement of Architects and Surveyors, and all those whose responsibility it is to design plumbing and heating installations.

The sheets will appear in a form suitable for filing in a loose-leaf binder, and they may be obtained by means of a regular subscription to the Journal of 15/- per year, post free; binders are 2/9d. each, post free,

Dept. C.I.

The Plumbing Trade Journal Co. Ltd.

Cromford House Manchester, 4.

Specify CERRUX

DECORATIVE PAINTS CELLON LTD., KINGSTON-ON-THAMES

NORTHERN POLYTECHNIC, HOLLOWAY,

Principal: A.S.M. Symons, Ph.D., B.Sc., A.R.C.S., D.I.C., F.Inst.P.

Head of Department of Architecture: T. E. Scott, C.B.E., F.R.I.B.A.,

DAY SCHOOL OF ARCHITECTURE

THE Northern Polytechnic Diploma in Architecture, which is awarded on the successful completion of the five years' full-time course and subsequent passing of the examination in Professional Practice, qualifies students for exemption from the Final Examination for Associateship of the Royal Institute of British Architects' Registration Council of the United Kingdom as a qualification for registration under the Architects (Registration Acts, 1931-1938. School year begins 24th September, 1956.

Fees-£30 per annum. udents under the age of 18 may be admitted

EVENING SCHOOL OF ARCHITECTURE (Five years' Course recognised by the R.I.B.A. for exemption from the Intermediate Examination.) New session begins 24th September, 1956. Fees from 30s to 70s per course.

Special Design classes and lectures on the Theory of Structures, Hyglene, Materials, Specifications, and Professional Practice in preparation for the Final Examination of the R.I.B.A.

PART-TIME DAY CLASSES

PART-TIME DAY CLASSES

A leaflet describing part-time day courses will be sent on application.

ENTRY TO THE SCHOOLS. Intending day students are interviewed by appointment. Intending evening students will be interviewed from 5.30-7.30 p.m. on 17th and 18th September, or on any subsequent Monday evening at 6.30 o'clock.

Prospectus post free on application.

Telephone: North 1886. [8288]

N. IRELAND-BALLYCARRY, BEL-FAST. (a) Erection of a new building at Ballycarry Presbyterian Church. (b) David Caldwell, Bellahill House, Carrickfergus. (c) £2.

N. IRELAND—BELFAST. (a) Supply and fabrication of the reinforcing for, and the erection of a four-bay concrete shell roof at Broomhill primary school, Andersonstown. (b) Dr. I. G. Doran, 450 Antrim Road. (c) 5gns. by cheque. (e) September 24.

N. IRELAND-LONDONDERRY C.C. (a) Erection of 54 dwellings at Clondermot, Waterside. (b) Guildhall, Londonderry. (c) £25 to City Accountant. (e) September 29.

IRELAND-MINISTRY OF FINANCE. (a) Erection of an automatic telephone exchange at Hill Street, Lurgan, Armagh. (b) Ministry of Finance (Room 103), Law Courts Buildings, May Street, Belfast. (c) £5. (e) September 28.

N. IRELAND-OMAGH. (a) Carrying out alterations to ward for construction of sanitary annexes, at Tyrone and Fermanagh Hospital. (b) The Secretary, Tyrone and Fermanagh Hospital. (c) 2gns. (e) September 21.

PETERBOROUGH C.C. (a) Erection of 30 houses at Bluebell estate, (b) City Engineer, Town Hall. (c) 2gns. (e) September 24.

POCKLINGTON R.C. (a) Erection of 2 houses at Bishop Wilton and 6 houses at High Catton. (b) Council's Surveyor, Council Offices, Pocklington, York.

RICKMANSWORTH U.C. (a) Erection of 70 dwellings at Maple Cross estate. (b) Council's Engineer, Council Offices, immediately, giving the names of other Local Authorities for whom work of a comparable nature has been carried out during the past three years. (c) 3gns. (e) October 16.

RINGWOOD AND FORDINGBRIDGE RINGWOOD AND FORDINGBRIDGE
R.C. (a) Erection of two pairs singlestorey dwellings and one pair threebedroom houses together with ancillary
drainage and site works at Harbridge
and Ibsley, South Gorley. (b) Frank
Andrews, 58 Southampton Road, Ringwood, (c) 2gms, by cheque (c) Sen-(c) 2gns. by cheque. (e) Sepwood. tember 28.

SALISBURY C.C. (a) Erection of 21 houses, 20 flats, 10 bungalows and 22 garages on the Bishopdown estate. (b) City Engineer, The Council House, Bourne Hill. (c) £2. (e) September 24.

SALISBURY AND WILTON R.C. Erection of two houses and two bunga-lows at Pitton. (b) Council's Clerk, The Council Offices, 26 Endless Street, Salisbury. (c) 2gns. (e) September 26. SEVENOAKS R.C. (a) Erection of 16 houses and flats on a site adjoining Croydon Road, Westerman. (b) Council's Engineer, ''Inglewood'', Oak Hill Road, Sevenoaks. (c) 2gns. (e) October 4.

SOUTHPORT B.C. (a) (Contract 1) Main contract, which includes erection of the school buildings, construction of roadworks and playing fields, (Contract 2) pre-cast concrete floors and cast in situ staircases, (Contract 3) purpose made metal windows, (Contract 4) floor finishes; thermoplastic, fleximer, crestaline and ceramic, (Contract 5) built-up roofing; woodwool slab and three-layer felt, (Contract 6) internal hot and cold water services and heating by cabinets, (Contract 7) fixtures and fittings to classrooms, laboratories and kitchen, (Contract 8) gas service installation, at proposed High School for Girls, Hillside. (b) Borough Architect, 99-105 Lord Street, (c) 2gns. each contract. Contracts should state clearly which contracts they require. (e) October 12.

STATES OF GUERNSEY. (a) Erection of a new secondary modern school to accommodate 600 pupils at Beaucamp Castel. (b) States Engineer, States Offices, Annexe, Albert Pier. (c) 3gns. (e) October 1.

SUNDERLAND B.C. (a) Erection of 8 shops and flats and 7 garages at Allendale Road, Farringdon estate. (b) Borough Architect, Grange House, Stockton Road. (c) 2gns. (e) September 22.

WALSALL B.C. (a) Erection of a new laundry and dormitory accommodation at Hammerwich House, Hammerwich, near Lichfield. (b) Borough Engineer, Council House, Walsall. (c) 2gns. (e) September 21.

WORTLEY R.C. (a) Erection of 52 houses at Pilley, near Barnsley. (b) Mr. Arthur Wikeley, Council Offices, Granoside, Sheffield. (c) £3. (e) October 2.

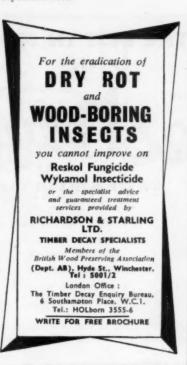
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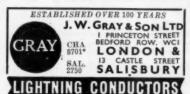
Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

SHEFFIELD CORPORATION. (1) 115 dwellings. (2) Gleadless Valley Estate. (3) J. F. Finnegan and Co. Ltd., 847 Eccleshall Road, Sheffield. (4) £156,835.

MANCHESTER. (1) Block of offices for Woolwich Equitable Building Society Ltd. (2) Mosley Street. (3) R. Carlyle and Sons Ltd., Elsinore Road, Trafford Park, Manchester. Office blocks for W. J. Brookes and Sons Ltd. (2) Trafford Park. (3) William Thorpe and Sons Ltd., Chester Road, Cornbrook, Manchester.

CARDIFF. (1) Garage, repair shops, etc. (2) Sloper Street. (3) Davies, Middleton and Davies Ltd., Phoenix Works, Caerphilly Road, Cardiff. (4) £100.000.







RINGMER BUILDING WORKS, LTD.

BUILDERS & CONTRACTORS

Joinery Specialists

RINGMER : LEWES : SUSSEX
Telephone: Lewes 300

don't just say mastic specify **SECOMASTIC**Secondarite Ltd. Bracknett. Berick, Tell: Bracknett 910

CRAYFORD U.D.C. (1) 88 maisonettes, 10 flats, 4 shops. (2) Slade Green. (3) Selleck Nicholls and Co. Ltd., St. Austell, Cornwall. (4) £162,000.

HUDDERSFIELD. (1) Factory on 28 acres. (2) Honley. (3) William Mallinson and Sons (Lockwood) Ltd., Lockwood, Huddersfield.

LANCASHIRE C.C. (1) St. Christopher's C. of E. School. (2) Accrington. (3) Ashworth and Hobson Ltd., Rawtenstall, Lancs. (4) £19,714.

BEBINGTON (CHES) B.C. (1) Three blocks of 48 flats. (2) Town Lane. (3) Yloyd and Cross Ltd., 68 Argyle Street, Birkenhead. (4) £73,181.

BERWICK-ON-TWEED B.C. (1) 100 houses. (2) Spittal Hall Estate. (3) J. H. Pierce, 54 Osborne Road, Tweedmouth.

BILSTON B.C. (1) 28 flats, 16 houses, 7 aged persons' dwellings. (3) Gregory Housing Ltd., Farncombe Road, Worthing, Sussex. (4) £66,659.

BIRMINGHAM CORPORATION. (1) 36 dwellings. (2) Duddeston and Nechells Unit No. 4. (3) Five Oaks Estates Ltd., Castlecroft Lane, Compton, Wolverhampton. (4) £72,447. (1) 23 dwellings and 8 dwellings. (2) Cranes Park Estate and Chilcote Close. (3) Gilligan Bros., 765 Shir.'ey Road, Birmingham, 26. (4) £34,943 and £12,719.

BOOTLE. (1) Hotel for Walker Cain Ltd. (2) Sterrix Lane. (3) Worthingtons (Contractors) Ltd., 81 Shaw Street, Liverpool.

CHELMSFORD B.C. (1) Flats. (2) Baker Street—New Writtle Street. (3) Johnson Crozier Ltd., Bank Chambers, High Street, Chelmsford. (4) £57,097.

KESTEVEN (LINCS). (1) Additional site at Stubton Hall Boarding Special School. (3) W. Foster and Sons, Wharf Road, Grantham, Lincs. (4) £61,194.

SHEFFIELD CORPORATION. (1) Erection of bus depot and garage. (2) Greenland Road. (3) Public Works Department (direct labour). (4) £290,179.

FELLING, CO. DURHAM. (1) Pithead baths, medical centre, etc., for N.C.B. (2) Wardley Colliery. (3) Middlemiss Bros., Stepney Bank, Newcastle upon Tyne.

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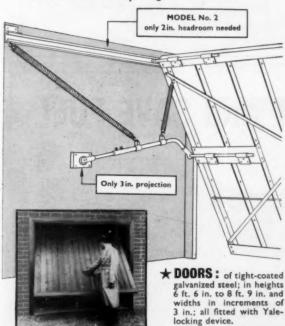
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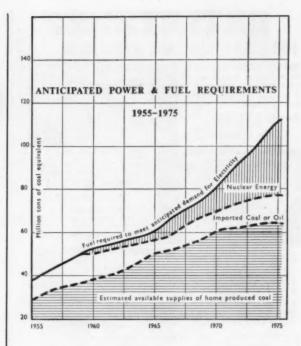
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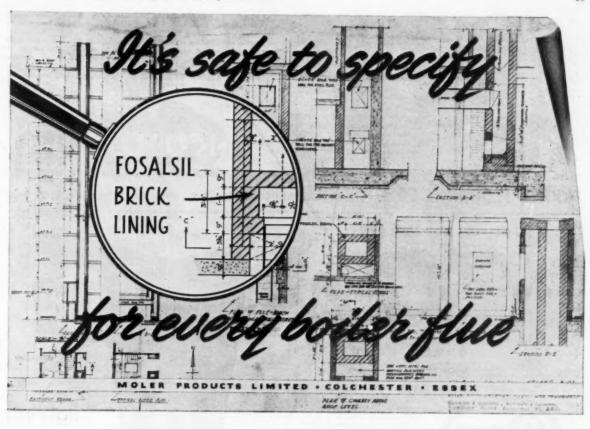
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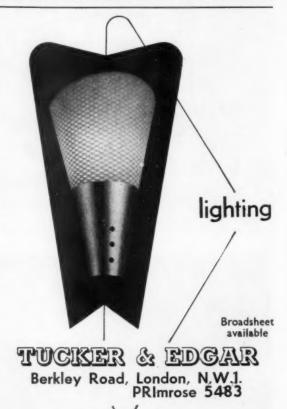
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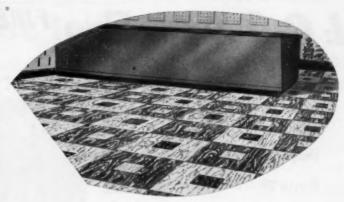
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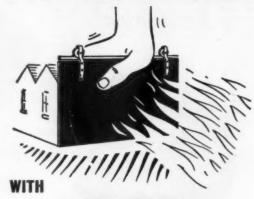
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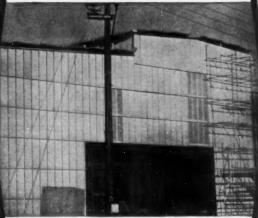
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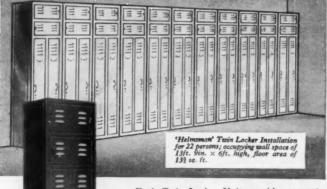
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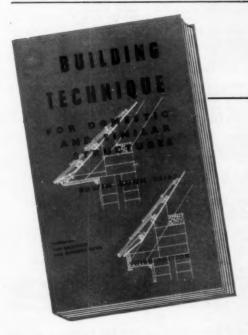
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